BLACK MOUNTAIN OPEN SPACE PARK
NATURAL RESOURCE MANAGEMENT PLAN

MARCH 2012

PREPARED BY
CITY OF SAN DIEGO
PARK AND RECREATION DEPARTMENTOPEN SPACE DIVISION
IN CONJUNCTION WITH
CITY PLANNING AND COMMUNITY INVESTMENT DEPARTMENT
MULTIPLE SPECIES CONSERVATION PROGRAM

Adopted by San Diego City Council
on _____, by Resolution No. _____

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SUMMARY

The *Black Mountain Open Space Park Natural Resource Management Plan* (Plan) recognizes the value of natural resources in the Black Mountain Open Space Park (Park) and provides Area Specific Management Directives as required by Section 10.6.B of the MSCP Implementing Agreement for protection, enhancement, and management of these resources. This Plan establishes guidelines for present and future use and maintenance of the Park while protecting the natural resources. The 1,554-acre Park is located in the community of Rancho Peñasquitos, City of San Diego, California. The Black Mountain study area consists of Black Mountain, Paraiso Cumbres, and Montana Mirador and is in the northern portion of the City. The Park is roughly bounded by Black Mountain Road to the north and west, and Carmel Mountain Road to the south and east.

Management of the Park must address issues of public use and potential overuse; urban encroachment; presence of utility structures requiring maintenance and expansion; erosion from slopes, hillsides, and water courses resulting in sedimentation in riparian areas; and fire-fuel management. Guidelines provided in the management plan for maintenance, Park usage, and development include the following practices: requiring prior maintenance crew "natural resource awareness" training; requiring all maintenance vehicles and personnel to stay within existing access roads and rights-of-way; minimizing erosion by using appropriate measures and Best Management Practices (BMPs); providing cultural resource protection and awareness; scheduling maintenance and development activities to avoid nesting/breeding seasons; restraining domestic animals; keeping Park users on designated areas and trails only; inspecting trails regularly to identify areas requiring erosion control, maintenance, closure, and/or revegetation; providing buffer zones around sensitive areas; and limiting water quality and erosion impacts from new development.

Five hundred thirty-eight acres, also known as Montana Mirador (see Figure 9), are located in the southern portion of the Park. Three hundred twenty-five acres of this parcel were used to mitigate biological impacts to sensitive upland habitats associated with the San Diego County Water Authority (CWA) Emergency Storage Project (ESP). Management and monitoring of the site is required by the U.S. Fish and Wildlife Service (Biological Opinion (BO) 1-6-97-F-13) and shall be conducted in accordance with this Plan upon approval.

For maintenance activities and any new development that are unable to eliminate impacts and, thereby, result in natural resource disturbance, mitigation and restoration guidelines per the appropriate permits (e.g. CEQA) will be required. Any impacts to mitigation lands associated with the CWA ESP shall be approved by the CWA, USFWS, and City of San Diego. Additional mitigation will be required to offset any impacts to mitigation lands within the Park. The 325-acre Montana Mirador parcel shall be managed by the City of San Diego pursuant to the provisions contained within this Plan. This Plan and its manager shall be approved by the USFWS pursuant to the ESP BO.

Enhancement and restoration guidelines provided in the Plan include: the elimination of non-native, exotic plants and their replacement with native vegetation; a controlled or prescribed burn program to stimulate coastal sage and chaparral vegetation; the posting of "No Entry" signs for areas supporting sensitive plants and animals including sensitive bird species nesting sites and sensitive plant areas; specific management and enhancement options for MSCP covered species; and periodic monitoring of natural resources.

Suggested guidelines for interpretive and research opportunities include: use of signs with rustic appearance; limitation of interior Park signs; placement of kiosks at major access locations for information and interpretive signs and brochures; installation of an interpretive facility focused on natural history and biological and cultural resources; and encouragement of research to gather unknown information on natural and cultural resources. The Plan also includes a trails plan that would satisfy this area of the City-Wide Trails Master Plan. Implementation responsibilities of the various departments at the City of San Diego, Citizen Advisory Committee, and other local community groups associated with the Park are also discussed.

A variety of tasks and action items are identified throughout this document. A list of these tasks in order of priority is given in Chapter 11, Implementation.

1. INTRODUCTION

A. PLAN AREA SETTING

For the purpose of this Plan, the area bounded by Black Mountain Road to the north and west, and Carmel Mountain Road to the south and east will be considered the limits of the Park (Park; Figure 1). The Park, which is managed as a whole, is a composite of the existing 1,014-acre Park to the north and the recently acquired 538-acre Montana Mirador site to the south. The Park areas have both existing and proposed trails and facilities (Figure 2). The open space west of Carmel Mountain Road, including Santa Luz and the Lusardi grasslands, will be covered in a separate plan. When additional properties are added to the Park, this Plan will also apply to those lands and may be amended to include specific management guidance for new lands if necessary. This Plan may provide general management guidance for lands currently outside the boundaries of the Park. Maintenance and or restoration activities suggested in this document cannot occur on private land without the permission of the landowner.

The Park is owned by the City of San Diego and originated in 1964 when the City acquired it under the "Recreation and Public Purposes Act of 1926." Additional acres were acquired in 1999 with funding provided by the Water Conservation Board and the County Water Authority. Easements for San Diego Gas and Electric (SDG&E) and CWA are maintained on-site. Approximately two acres at the top of Black Mountain are owned by American Towers, Pacific Bell, and Time Warner. Communication towers and access for the communication towers are maintained on-site. This area will not be considered part of the habitat management and restoration guidelines sections but will need to follow the guidelines provided which apply to adjacent land uses to ensure the minimization of negative impacts to neighboring natural habitat and species and Municipal Code requirements for such facilities.

A 325-acre portion of the 538-acre Montana Mirador parcel, which is located in the southern portion of the plan area, was purchased and dedicated as open space in order to mitigate biological impacts associated with the San Diego CWA ESP. The remaining 213 acres of this parcel were purchased through a Wildlife Conservation Board grant for inclusion in the Park. Management and monitoring of the Montana Mirador CWA mitigation lands (Montana Mirador conservation area) is required and shall be conducted in accordance with this Plan once approved by the USFWS (BO 1-6-97-F-13). The primary purpose of this area is protection of biological resources and no new development is proposed or anticipated within the 325-acre Montana Mirador conservation area. The area includes existing trails to be permanently closed and others to remain open, as identified on Figure 2. New development should be avoided, and any impacts to Montana Mirador conservation area lands would require approval from the CWA, USFWS, and the City

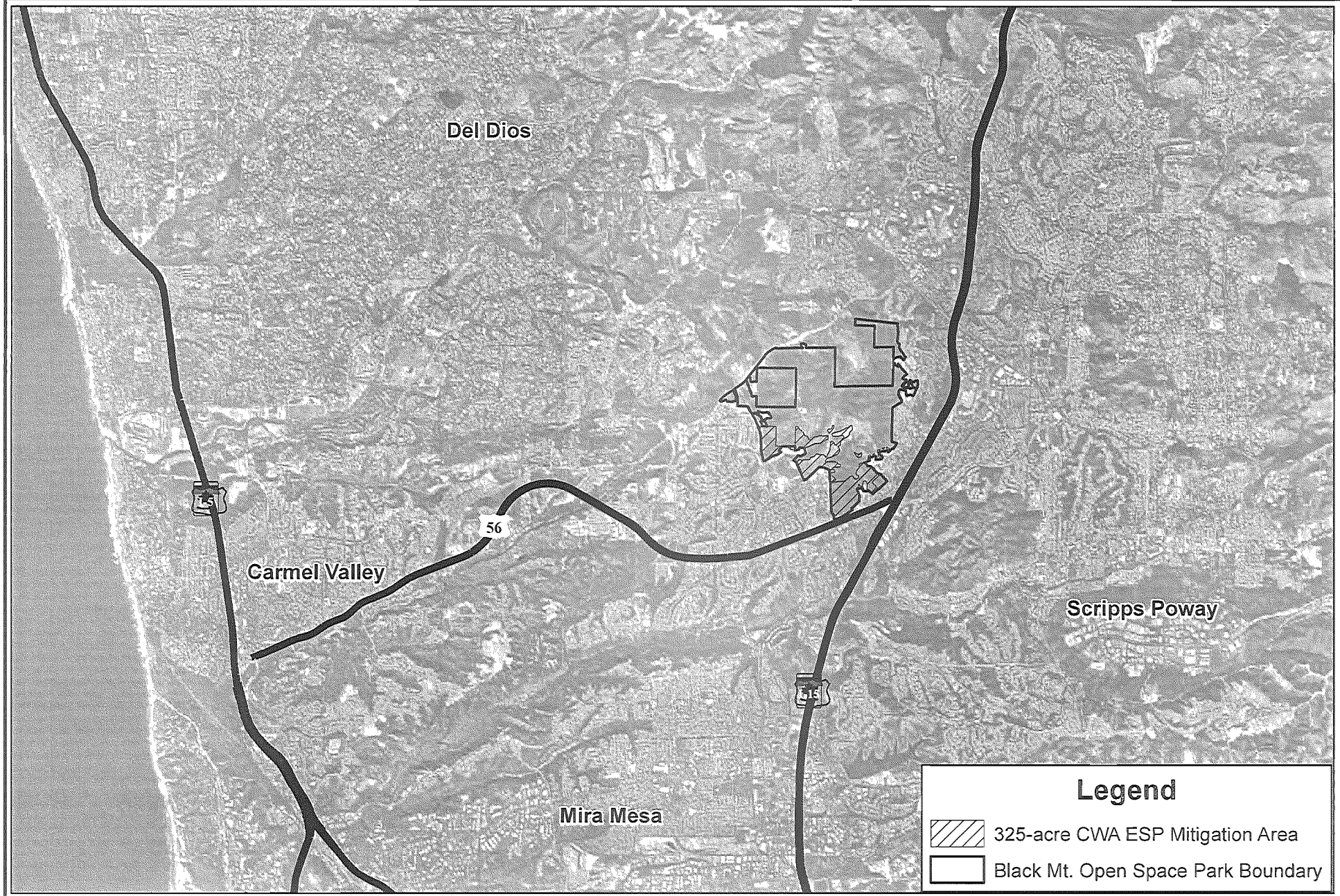

Figure 1

Black Mountain Open Space Park
Location Overview

SanGIS

Sources: SanGIS, City of San Diego
Created By: Tyler Friesen 8/8/11

0 0.5 1 2 3 4 Miles

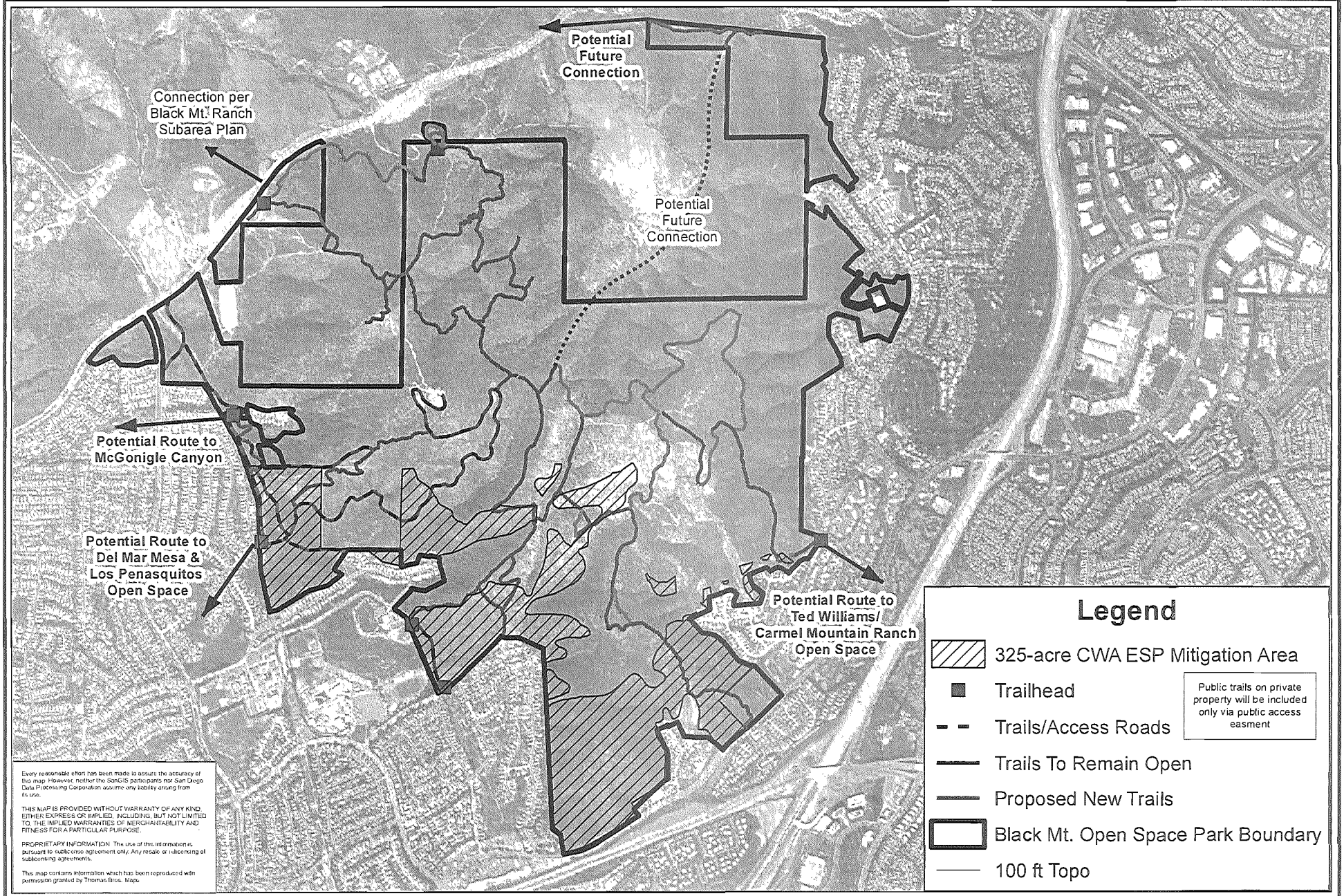

Figure 2

Black Mountain Open Space Park Trails

N

SanGIS
We Have San Diego Covered!
Sources: SanGIS, City of San Diego
Created By: Tyler Friesen 8/8/11

0 0.125 0.25 0.5 0.75 1 Miles

of San Diego. Additional mitigation, as determined by CEQA and wildlife agency review, would be required to offset any impacts to mitigation lands within the Park.

Background documents used in the preparation of this Plan include the following: 1) *Black Mountain Rare Plant Survey* (November 2001); 2) *MSCP California Gnatcatcher Monitoring Survey Report* (August 2001); 3) *City of San Diego MSCP Subarea Plan* (March 1997); 4) Draft *Black Mountain Park Master Plan* (November 1987); 5) *Montana Mirador Environmental Impact Report (EIR)* (June 1993); 6) *Peñasquitos Community Plan*, and 7) MSCP Rare Plant Monitoring Reports (1999-2010).

B. PURPOSE

The purpose of this Plan is to provide guidance for the present and future use and maintenance of the Park, as well as Area Specific Management Directives (ASMDs) which satisfy the requirements of the City's MSCP Implementing Agreement for Black Mountain Open Space. These ASMDs include specific application of the conditions of coverage in Table 3-5 of the MSCP Subarea Plan within the Park (see Chapter 10.D for MSCP covered species that occur within the Park).

This Plan is intended not only to make provisions for the protection and preservation of the natural resources, especially sensitive resources, but also to allow safe and accessible use of the Park to meet the needs of the present and future communities through the trail plan (Figure 2). The Plan provides for maintenance of the quality of the Park's natural environment and associated visual enjoyment of the Park's open space. In addition, this Plan is intended to identify management needs for the 325-acre CWA mitigation portion of the site pursuant to the terms and conditions in the CWA's ESP BO. This Plan is also intended to compliment any future Park master plan, which would include management directives for any potential new recreation sites within the Plan area. A variety of tasks and action items are identified throughout this document. A list of these tasks in order of priority is given in Chapter 12, Implementation.

Creation and implementation of this Plan also contributes to the fulfillment of Condition 2.1 of BO 1-6-97-F-13, which requires the preservation and management of "420 acres of coastal scrub habitat, of which 210 acres are to be located within a core California gnatcatcher (*Polioptila californica californica*; gnatcatcher) population, and consist of habitat evaluated as high/very high for the gnatcatcher; support a minimum density of nine gnatcatcher pairs; and contain a minimum of 475 acres of land designated as 'very high' and 44 acres designated as 'high'" (USFWS, 2002).The 325-acre Montana Mirador conservation area purchased by the CWA supports a total of 310 acres of coastal scrub habitat, of which 184 acres are within a core gnatcatcher population, and consists of 218 acres of habitat evaluated as high/very high for the

gnatcatcher; supports 29 gnatcatchers (12 pairs and 15 unpaired individuals), and contains 186 acres of land designated as "very high" and 32 acres of land designated as "high" (San Diego CWA, 2000).

The purpose, goals, and objectives of this Plan are established as long-range goals with review as needed. The guidelines outlined in the Plan will be updated at approximately ten year intervals, or as needed, with input from the City of San Diego, Black Mountain Citizen's Advisory Committee, resource agencies and other interested parties.

C. OBJECTIVES

The objectives of this Plan are:

1. To establish management practices and means to preserve and protect biological resources while providing for future passive recreational use, maintenance, and land use compatible with the Multi-Habitat Planning Area (MHPA) in the Park;
2. To enhance and restore native habitats in the Park;
3. To adaptively monitor and manage native habitat and wildlife species for their survival per the MSCP, and to provide Area Specific Management Directives for Black Mountain Open Space as required by Section 10.6.B of the MSCP Implementing Agreement;
4. To identify and maintain important wildlife corridors and the connectivity between open space areas;
5. To control erosion throughout the Park and protect the watershed;
6. To facilitate compatible public uses such as picnicking, multi-use trails, and other low-intensity (passive) recreational activities;
7. To develop opportunities to utilize reclaimed water for habitat enhancement;
8. To ensure all individual projects proposed within the Park meet federal, state, and local environmental standards and requirements;
9. To enhance and maintain the quality of water resources in the Park;
10. To protect, restore and maintain archaeological and historical resources in the Park pursuant to the Park Cultural Resources Management Plan.
11. To discourage illegal and unauthorized activities through an enforcement program;
12. To develop a reporting and enforcement procedure for preventing encroachment into Park property;
13. To conduct education, outreach, and research programs which increase public awareness of the unique natural and cultural resources within the Park;

14. To develop and maintain facilities compatible with the natural character of the Park;
15. To develop procedures for facility and utility siting, maintenance, and repair which are sensitive to species, habitat, and aesthetics;
16. To develop emergency response procedures which safe-guard sensitive species and habitat; and
17. To ensure that all improvements and maintenance activities consider and provide for public safety.

D. CONSTRAINTS AND OPPORTUNITIES

The Park offers an opportunity to combine recreational and community planning with the protection and enhancement of natural resources within certain constraints.

The Plan recognizes the following constraints.

1. The primary purpose of this Management Plan is to protect, preserve, and enhance natural resources in the Park. Since, however, the Park is in an urban setting, management of the Park must consider the proximity of residential and recreational uses and cannot be managed solely as wildlife habitat.
2. Within the Plan area, there are a variety of access easements, including but not limited to CWA pipelines, San Diego Gas and Electric power poles and communication towers owned by Pacific Bell and AT&T. These activities, plus the extensive residential development in the surrounding the site, preclude returning all of the Plan area to undisturbed habitat.
3. Protection of natural resources, as required by state and federal law, may preclude certain human activities (e.g., construction, recreation) from certain areas and during certain seasons.
4. Erosion within the Park may make siting of trails and other facilities difficult, and erosion control is a necessity for site management.
5. Large areas within the Park were set aside as mitigation for development projects (e.g. Montana Mirador) or purchased with grant funding (e.g. Water Conservation Board) and therefore are subject to additional restrictions on recreation and development (e.g. increased mitigation ratios if impacted).

Opportunities within the Park for preserving wildlife habitat and maintaining recreational access include the following:

1. Comprehensive planning and management can provide adequate protection measures for natural resources.
2. Areas of degraded habitat within the Park can be restored to improve the overall natural resource system.
3. Habitat improvement or conversion may be used as mitigation for future losses.
4. The Park system, including biological and historical resources, can be used for educational and research purposes.
5. Many recreational activities in the Park are compatible with most resources based on low intensity, duration and timing. Instances of incompatible recreational activities should be managed based on guidelines provided in Chapter 7.D.
6. The size of the Park can support a wide spectrum of habitat and wildlife, as well as allowing recreational use in areas separate from those requiring sensitive species protection and habitat enhancement.
7. An interpretive center and signage throughout the Park could provide educational opportunities for visitors to learn about preservation of the natural and cultural resources present as well as history of the area. A docent-guided tour program of historic/cultural resources and off-site heritage interpretation are also recommendations of the Cultural Resources Management Plan.

2. AGENCY JURISDICTION AND APPLICABLE PLANS

A. AGENCY JURISDICTION

A number of agencies have direct or indirect involvement with land use planning, resource protection, and permit approvals for the Park. The primary agencies and their degrees of involvement with activities in the Park are as follows:

City of San Diego: The Park is within the jurisdiction of the City of San Diego. The day-to-day management of the Park is the responsibility of the Park and Recreation Department, operating under the authority of the Mayor. In 2003, the City Council established the Open Space Division in Park and Recreation. This division has taken on the task of managing the City's existing open space park system, including lands acquired under the Multiple Species Conservation Program (MSCP). The Open Space Division of the Park and Recreation Department performs all management activities on open space parklands, including tasks such as trash removal, maintenance of all physical structures (such as fences, restrooms, signs, and trails), and brush management. Additionally, this Division provides park rangers, whose responsibilities include enforcement of city and state regulations, overseeing small enhancement and restoration efforts, interpretive activities, and coordination of volunteers. The Park and Recreation Department includes a Natural Resource Management Section whose primary purpose is the MSCP-required monitoring, management and protection of environmental resources within the City's natural parks and open space, including development of Area Specific Management Directives such as this Plan as required by Section 10.6.B of the MSCP Implementing Agreement.

The MSCP Section of the City Planning and Community Investment Department oversees the development regulations and land acquisition of the MSCP program. MSCP staff also coordinates with Park and Recreation on activities related to MSCP covered species and biological management.

The Development Services Department involvement focuses on the permitting and environmental review process. Any individual project proposed within or adjacent to the Park is required to meet the regulations outlined in the following applicable plans, ordinances, and laws: Land Development Code, MSCP Subarea Plan, applicable community plan(s), City General Plan, and City environmental and construction standards and requirements. Agencies and the public become involved with individual project proposals during this process. For projects requiring permitting, the Development Services Department serves as a liaison between the City, public, and agencies. Other City departments involved in the Park include the Police, Fire, Engineering and Capital Projects (erosion control; urban runoff; streets), and Public Utilities departments.

U.S. Army Corps of Engineers (ACOE): The U.S. ACOE exercises permit authority under Section 404 of the Clean Water Act. Projects that involve the discharge of fill or dredge material into Waters of the United States must secure a Section 404 permit through the ACOE. There are several U.S. Geological Survey-identified blue line streams within the Plan area that may require a 404 permit if placement of fill or dredge material is proposed within them (see Chapter 3 Section B for additional information regarding hydrology in the Park). There may be additional Waters of the U.S. in the Park for which a permit would be required. Consultation with ACOE would be required for a determination on an individual project's need for a 404 permit.

U.S. Fish and Wildlife Service: The USFWS acts in an advisory role through the Fish and Wildlife Coordination Act with projects requiring an ACOE or other federal permit, or certain City of San Diego permits. The USFWS also serves other permitting agencies in an advisory capacity. Of particular importance to the USFWS is the status of plants and animals on the List of Endangered and Threatened Species, which are protected under the federal Endangered Species Act of 1973. The USFWS also is concerned with protecting bird species covered by the Federal Migratory Bird Treaty Act of 1916, (as amended 1994). The USFWS has signed an Implementing Agreement with the City of San Diego for the City of San Diego MSCP Subarea Plan. The USFWS has also issued a BO (1-6-97-F-13) regulating management for the 325-acre Montana Mirador portion of the study area discussed within this document.

California Department of Fish and Game: Involvement of the California Department of Fish and Game (CDFG) can occur in multiple ways. For projects involving alteration of a streambed, a permit must be issued pursuant to Section 1601-1.606 of the CDFG Code. The second type of involvement would occur when the CDFG serves in an advisory capacity to the City of San Diego NCCP. The third area of involvement relates to plants and animals on the California List of Endangered or Threatened Species that are protected under the California Endangered Species Act. Other areas of involvement include implementation of the CDFG Code on issues such as nesting birds and Water Conservation Board Funding, and as a Responsible or Trustee Agency under CEQA. The CDFG is signatory to the MSCP Implementing Agreement for the City of San Diego MSCP Subarea Plan.

California Water Quality Control Board: The State Water Quality Control Board through its local office, the Regional Water Quality Control Board (RWQCB), administers National Pollutant Discharge Elimination System (NPDES) permits. A NPDES permit would be required for any future activity disturbing five acres or more within the Park. The RWQCB will also be requiring new development to follow BMPs under the San Diego Municipal Storm Water Permit.

B. CITY PLANS APPLICABLE TO BLACK MOUNTAIN OPEN SPACE PARK

Multiple Species Conservation Program

City of San Diego MSCP Subarea Plan (1997) is a part of the MSCP regional program of which the County of San Diego and several other local jurisdictions are also participants. The MSCP process was originally initiated by the City of San Diego's Metropolitan Wastewater Department during the early 1990s. At that time, several local plant and animal species had recently been listed as state and/or federally threatened or endangered, so extensive state and federal permitting would be necessary for the department's Metropolitan Sewerage System upgrade projects. Because other local government agencies and private developers in the area had similar needs, it was recognized that a regional plan would be beneficial to area developers as well as for regional conservation efforts.

An MSCP working group was assembled, which included: 1) Participating jurisdictions and special districts (11 local cities and the County of San Diego); 2) The U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG); 3) Property owners; 4) Development industry representatives (e.g., the Building Industry Association, etc.); and 5) Environmental group representatives (e.g., Sierra Club, Center for Biologial Diversity, etc.).

These groups were all stakeholders in development of the MSCP and worked together for several years to draft the current MSCP program. Based on the stakeholders work, participating agencies such as the City of San Diego and the County of San Diego then developed MSCP implementing agreements for their respective jurisdictions. Because they were involved in its development and have an ongoing stake in the program, many of the working group members remain active participants in the MSCP. Development industry groups and environmental groups, in particular, remain actively involved in the program and have been partners in program implementation and oversight.

On March 18, 1997, the San Diego City Council unanimously adopted the MSCP (R-28455) and in July 1997 entered into a 50-year MSCP Implementing Agreement with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG). Through this agreement, the City received its federal Endangered Species Act section 10(a) incidental take permit (PRT-830421) on July 18, 1997.

Pursuant to its MSCP permit, the City of San Diego has incidental "take" authority over 85 rare, threatened and endangered species. This means that the City may incidentally impact these species without additional state or federal approval or permits. This take authority is used by

City departments for public projects and is also conferred to third parties (e.g., private developers) who receive City of San Diego development permits. Because take authority is granted locally, City and private development projects are spared the additional time and financial costs of state and federal wildlife agency permitting processes. In order to receive its MSCP take authority, the City agreed to carry out the obligations outlined in its Implementing Agreement. The City's primary MSCP obligations are:

1. Preserve 52,012 acres within the City's MSCP planning area (total acreage was increased to 52,727 acres per R-300799 in conjunction with the City's brush management ordinance changes adopted on September 6, 2005);
2. Ensure development project compliance with all City of San Diego MSCP implementing regulations (e.g., City of San Diego MSCP Subarea Plan, Environmentally Sensitive Lands Ordinance, Biology Guidelines, etc);
3. Annual reporting of habitat gains and losses to wildlife agencies;
4. All rare plant, animal, habitat, and wildlife corridor biological monitoring as outlined in the 1996 *Biological Monitoring Plan for the Multiple Species Conservation Program* (1996) or as updated by regional monitoring reviews (e.g. McEachern et al. 2007);
5. Biological monitoring results reporting to wildlife agencies on an annual basis;
6. Preparation of area-specific management plans for lands preserved under the program; and
7. Management of all lands preserved under the MSCP

The preservation of Black Mountain Open Space, currently encompassing 1,314 acres, is part of the City's conservation obligation of 52,727 acres. This Plan includes Area Specific Management Directives and fulfills the City's obligation #6 as noted above for Black Mountain.

The City's MSCP division is generally responsible for carrying out these obligations, with the exception of land management and monitoring, which is carried out by departments with ownership of preserved land (primarily the Park and Recreation's Open Space Division and Public Utilities Department) with input, as needed, from MSCP staff.

The Preserve Design Criteria in the MSCP Plan were used as guides in the development of the City's MHPA. The MHPA delineates core biological resource areas, including Black Mountain, and corridors targeted for conservation. The City's MHPA is approximately 56,831 acres and includes approximately 47,910 acres within City jurisdiction. Approximately 90 percent of the MHPA lands (52,012 acres) within the City's subarea will be preserved for biological purposes. The subarea is divided into five areas (Southern, Eastern, Urban, Northern, and Hodges Cornerstone Lands/San Pasqual Valley); the Park is within the Northern area.

Rancho Peñasquitos Community Plan

The Rancho Peñasquitos Community Plan identifies the Park as a resource-based park. The Park is subject to the policies of the Rancho Peñasquitos Community Plan and City of San Diego General Plan. The primary open space and resource management goals of the plan are to conserve, enhance and restore sensitive resources in the community; retain a viable connected open space system; maintain existing open space in its natural state; and prohibit development encroachment and adjacency impacts on open space.

Specific Rancho Peñasquitos Community Plan policies related to the Park include:

1. Open space areas should provide a continuous, connected open space system maximizing the use of open spaces as wildlife habitat.
2. Open space with reduced long-term biological value (due to proximity of development) should be used for moderate impact activities such as jogging, pet walking, mountain biking and interpretive trail hiking.
3. Open space serving as wildlife habitat should be maintained in its natural state.
4. Exotic or invasive plant species should not be planted adjacent to natural open spaces areas.

According to the Rancho Peñasquitos Community Plan, the following are guidelines to be followed in the design and development of parks, recreation, and open space:

1. Coordinate park development with growth in the planning area.
2. Provide passive recreation for all ages.
3. Provide a trail system. Integrate parks and open spaces wherever possible to provide a continuous open space network, maximizing the utility with use of layout, fencing, signage, and landscape at access points.

The plan also includes criteria for development adjacent to the park for prevention of impacts to park resources. These criteria include guidance on such issues as filling, grading, viewshed impact avoidance, public access, and project design. The community plan policies and criteria should be referenced during any proposals for development adjacent to the Park.

Lastly, the Rancho Peñasquitos Community Plan includes several open space and resource management goals. Following are the recommendations that are related to the Park or to areas immediately adjacent it:

1. Include the land acquisition of the remaining 240 acres of Black Mountain Park in the City's Capital Improvement Program (CIP).

2. Coordinate with the San Diego CWA to provide a pedestrian pathway and a Class I bicycle path along its utility easement. Require dedication of land along the paths during development of contiguous property.
3. Require that long- and short-term maintenance responsibilities on open space areas be clearly defined as a part of the development approvals. (Note: may apply if any new areas are added to the Park as mitigation for surrounding development)
4. Require applicants to set aside wildlife crossing areas through the Black Mountain neighborhood, connecting all remaining natural habitat to Black Mountain Park as development is approved.
5. Develop pathways or bike trails through the Black Mountain neighborhood for public access to Black Mountain Park.
6. Encourage the use of open space with reduced long-term biological value by:
    - Providing well-marked and convenient access points with signage which clearly indicates that these open space areas are intended to be used by people with pets, for mountain biking, hiking, and jogging, while other open spaces in the community are not available for such uses.
    - Developing interpretive and environmental outreach programs in these areas.
    - Educating new residents through homeowner's brochures.
7. Encourage retention of wildlife habitat value in connected open space systems by:
    - Providing signs which indicate these areas are for pedestrian use only and that pets are not permitted.
    - Providing signs at limited access points which direct moderate impact users to the appropriate areas in the community.
    - Providing visual access overlooks where possible.
    - Educating new residents through homeowners' brochures.

Black Mountain Ranch Community Plan

The western portion of the Black Mountain Ranch community is within the Black Mountain Open Space Park. The Community Plan includes the following policies for open space:

- Maintain natural resources such as mature stands of native vegetation, seasonal stream courses, wetlands and significant landforms.

- Provide a critical corridor for the regional MSCP open space system that serves as a wildlife linkage between regional parks and preserves, as well as a multi-resource habitat preservation area.
- Link open space areas with interconnected trails to provide opportunities for recreation, education, and visual relief.

The Community Plan also summarizes requirements of the MSCP Subarea Plan for managing open space and specific requirements for the Black Mountain area.

3. EXISTING CONDITIONS

The Plan addresses the natural resources found in the 1,014-acre Park and 538-acre Montana Mirador Park (Park).

A. GEOLOGY AND SOILS

The Park is located in the geological area known as the "Poway Quadrant" which consists of rock units called "Santiago Peak Volcanics." The Santiago Peak Volcanics comprise an elongate belt of mildly metamorphosed volcanic, volcaniclastic, and sedimentary rocks that crop out from the southern edge of Los Angeles Basin southward towards Mexico (California Division of Mines, 1975).

The Santiago Peak Volcanics are extremely erosion-resistant, hard, and form topographic highs. Where fresh, most of the volcanic rocks are dark greenish-gray in color but where weathered are grayish-red to dark reddish-brown. The soil that develops from the volcanic rocks is the color of the weathered rocks and supports growth of dense chaparral.

The majority of the soils onsite are classified as San Miguel-Exchequer rocky silt loam with smaller areas supporting San Miguel, Olivenhain, Auld, and Altamont soils (Figure 3). San Miguel soils are derived from meta-volcanic rock that is unique because of their relatively high acidity, clay subsoil layer, and low permeability. Olivenhain, Auld, and Altamont soils are also derived from meta-volcanic parent material and typically have a prominent clay layer (Bowman, 1973). Each of these soils types is known to support sensitive plant species elsewhere within the region. Following are the erodibility classifications for each of the on-site soils:

Soil Type	**Erodibility**
San Miguel-Exchequer rocky silt loam (SnG)	Severe
San Miguel rocky silt loam (SmE)	Severe
Olivenhain cobbly loam (OhE)	Severe
Auld stony clay (Aye)	Moderate
Las Flores loamy fine sand (LeE)	Severe
Altamont clay (AtC)	Slight

Source: Bowman, 1973

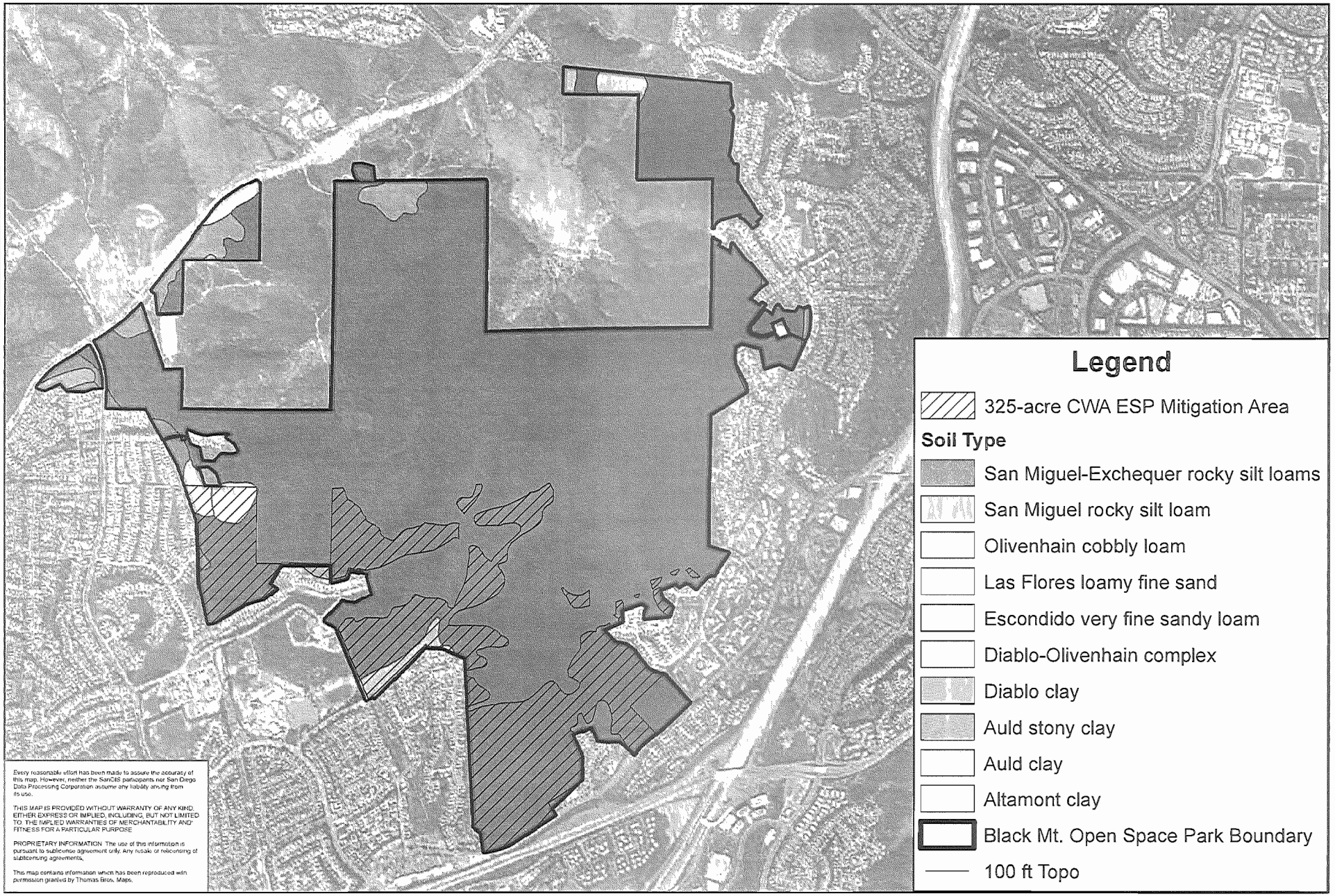

Figure 3

Black Mountain Open Space Park
Soils

SanGIS
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Sources: SanGIS, City of San Diego
Created By: Tyler Friesen 8/8/11

0 0.125 0.25 0.5 0.75 1
Miles

B. TOPOGRAPHY AND HYDROLOGY

When viewed from a regional scale, Black Mountain is part of a chain of relatively high coastal peaks stretching from northern Baja California to Camp Pendleton. A number of these peaks support sensitive plant species because of unique soils or microclimates (Beauchamp, 1986). The Park ranges in elevation from 600 feet above mean sea level at the southern portion of the study area to 1,552 feet at Black Mountain Peak. The topography is characterized by bands of steep ridges and canyons across the majority of the site. Most of the site is greater than 25 percent slope and much of the remainder is more than 10 percent.

The Park includes Black Mountain Peak and a system of interconnected ridges and ravines, including several U.S. Geological Service blue line streams (e.g., streams identified on U.S. Geological Survey 7.5-minute quadrangle topographic maps), that eventually drain to Los Peñasquitos, Carmel, and Lusardi creeks (Figure 4). A small portion of the site at the north to northeast boundary consists of more gradually sloping hills and meadows. Surface water within the park drains into channels that lead the water off-site and eventually empty into the San Dieguito River.

C. BIOLOGICAL RESOURCES

The Park area is comprised of a diverse assemblage of vegetation types and wildlife habitats. Plant and animal species lists are provided in Appendix A.

NATURAL COMMUNITIES

Chaparral, chaparral-coastal sage scrub, and coastal sage scrub are the dominant plant communities onsite (Figure 5). Non-native grassland and disturbed habitats are also found within the Park in areas associated with past disturbance. Small patches of native grassland, often less than one acre, and scrub oak chaparral were observed within larger stands of coastal sage scrub. One small freshwater marsh that is an old excavation site (Mike Kelly, pers. comm., 2004, see p. 22) was mapped in the northern portion of the Park.

Native Grassland - Some hillsides include substantial populations of the native purple needle grass (*Nassella pulchra*), including 3 acres in the northeast corner of Black Mountain mapped during general vegetation surveys (SANDAG 2012). Focused surveys for native grasslands could not be conducted as part of this plan but they are recommended as a future Priority 1 Task (see Section 11.E). Native grass is often intermixed with Non-Native Grassland and can be easily overlooked during general, coarse vegetation mapping; however, according to Mike Kelly, Black Mountain Citizen Advisory Committee member, the grasslands on the north slopes within the park are largely native grasslands. The largest of these grasslands is adjacent to the

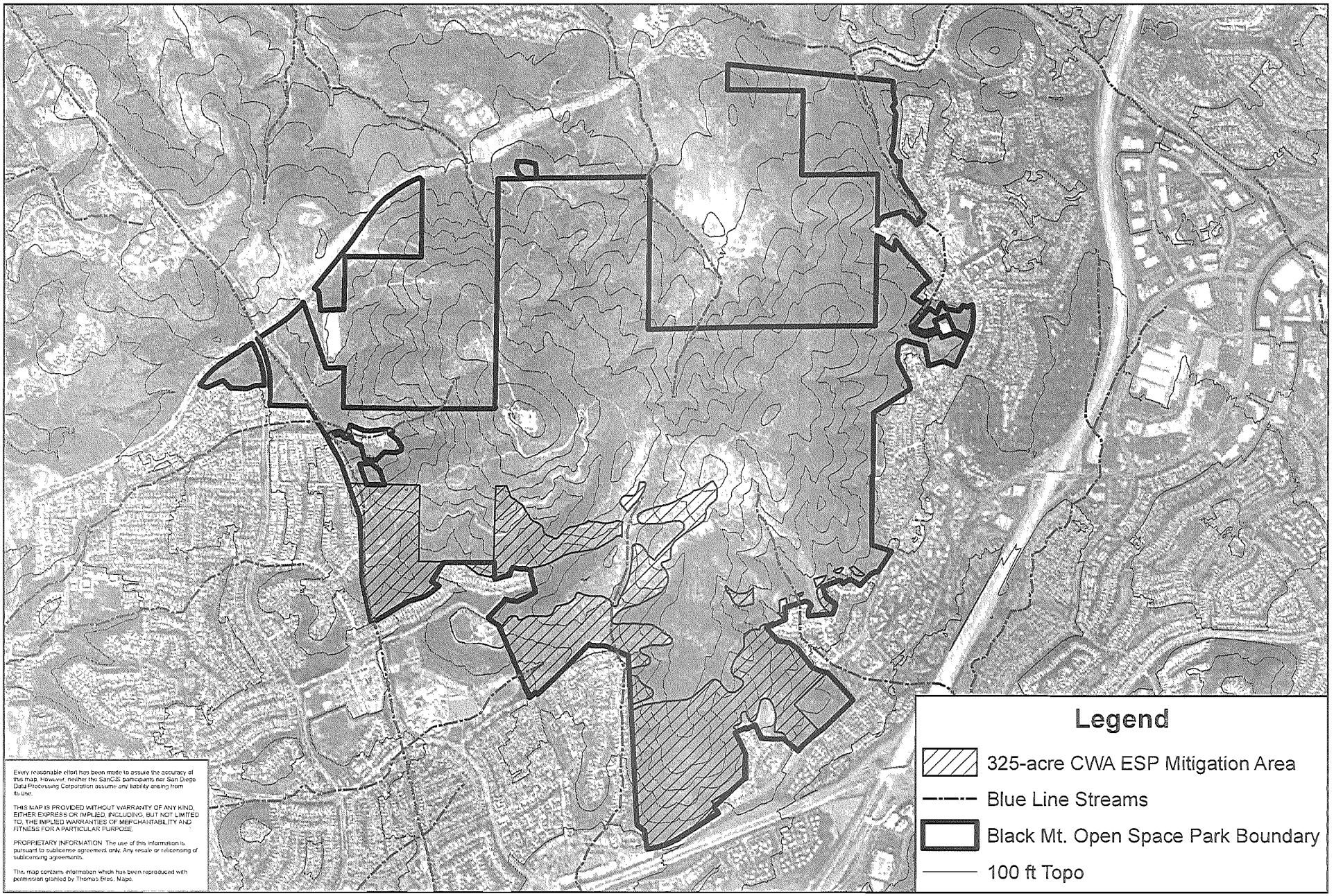

Figure 4

Black Mountain Open Space Park
Topography and Blue Line Streams

SanGIS
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Sources: SanGIS, City of San Diego
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0 0.125 0.25 0.5 0.75 1
Miles

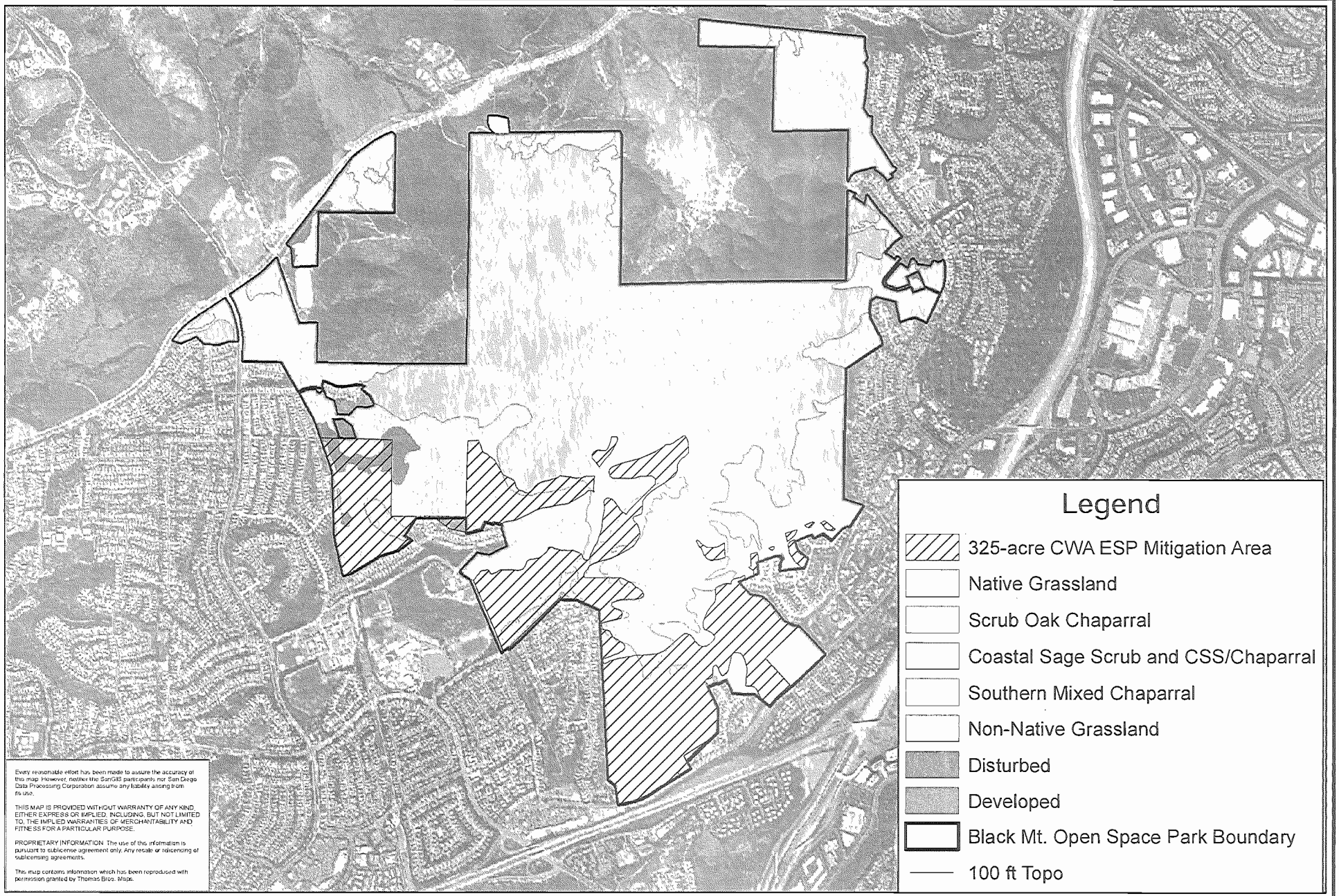

Figure 5

Black Mountain Open Space Park Vegetation Cover

parking/staging area on the north slope near the Gliderport and is greater than 50% native species cover, with a good diversity of grass, bulbs and annuals, and is over an acre in size. Another native grassland also exists east of Hilltop Community Park on the west slope of Black Mountain. Native composition in one large contiguous area ranges from 30%-80% cover. Other grasslands in the park are largely non-native but often have several native species, including *Nasella pulchra* present in patches. A number of native bulb and annuals are an important component of these grasslands, including plants such as thread-leaved brodiaea (*Brodiaea filifolia*), blue-eyed grass, hedge nettle, Johnny jumpups, checkerbloom, and others. Volunteers have been controlling invasives in these areas since the early 2000s (Mike Kelly, pers. comm., 2004, 2010).

These native patches of grassland may provide nesting habitat for the grasshopper sparrow (*Ammodramus savannarum*). Therefore, direct and indirect impacts to this habitat should be avoided. Native grasslands have been severely depleted throughout the coastal area and are often overlooked as sub-components of larger stands of non-native grasses.

Scrub Oak Chaparral - A small stand (0.73 acres) of scrub oak chaparral located in the southeast corner of the park within Montana Mirador was classified as *Quercus* (*berberidifolia,* x*acutidens*) Alliance and Association (SANDAG 2012). Scrub oak chaparral is characterized by dominant oak species with continuous cover, often occurring as small inclusions with scrubland vegetation types.

Diegan Coastal Sage Scrub and Coastal Sage-Chaparral Scrub - A total of approximately 695 acres of Diegan coastal sage scrub habitat and coastal sage-chaparral scrub are scattered throughout the Park (SANDAG 2012). A large portion of the coastal sage scrub (100 acres) and coastal sage-chaparral (195 acres) habitat is found on the Montana Mirador section of the Park. Approximately 185 acres of this habitat is California gnatcatcher (*Polioptila californica californica*) core habitat. Dominant species include coastal sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and lemonadeberry (*Rhus integrifolia*). The coastal sage scrub on-site contains many sensitive plant species including California adolphia (*Adolphia californica*), San Diego viguiera (*Viguiera laciniata*), and San Diego barrel cactus (*Ferocactus viridescens*).

Sensitive wildlife known to use the Diegan coastal sage scrub and chaparral-coastal sage scrub include: the coastal California gnatcatcher, and the orange-throated whiptail (*Cnemidophorus hyperythrus*). The San Diego coast horned lizard (*Phrynosoma coronatum blainvillei*) is also present in small numbers. Many bird species typical of scrub habitats in Southern California occur here, such as the California towhee (*Pipilo crissalis*), California quail (*Callipepla californica*), wrentit (*Camaea fasciata*), and California thrasher (*Toxostoma redivivum*). Other animals found in this habitat include the desert cottontail (*Sylvilagus* audubonnii) and western

fence lizard (*Sceloporus occidentalis*).

Southern Mixed Chaparral - Southern mixed chaparral is the most common habitat type within the Park, totaling approximately 794.8 acres (SANDAG 2012). Southern mixed chaparral is a plant community dominated by tall, drought-tolerant shrubs. This habitat is typically found on north-facing slopes. This plant community is dominated by chamise (*Adenostoma fasciculatum*), toyon (*Heteromeles arbutifolia*), ceanothus (*Ceanothus* spp.), and mission manzanita (*Xylococcus bicolor*). This vegetation type is usually dense with little or no under story cover. As a slightly more common habitat, southern mixed chaparral does not support a large number of sensitive species. However, some of the same species which inhabit the nearby scrub habitats may also utilize chaparral habitat.Southern Coastal and Valley Freshwater Marsh - A small amount of freshwater marsh (0.47 acre) occurs in the northern portion of the Park. Freshwater marsh consists of peripheral stands of vegetation around permanent or late-drying ponds. During the drier portions of the year, the marsh vegetation in these ponds typically dies back to the tuberous root system with only short and sparse young leaves remaining green. Several of these ponds are highly alkaline during the summer months and a thin layer of salt can often be seen crusting over drying mud in mid and late summer.

Dominant plants include cattails (*Typha* spp.) and bulrush (*Scirpus* spp.). Other native plant species likely occurring include marsh fleabane (*Pluchea odorata*), toad rush (*Juncus bufonius*), and several species of sedge (*Cyperus eragrostis*, *C. odoratus*, *C. erythrorhizos*). In addition, a variety of non-native weeds, such as bristly ox-tongue (*Picris echioides*), sometimes form on the disturbed marsh periphery.

Avian use by species such as the tri-colored blackbird (*Agelaius tricolor*) and red-winged blackbird (*Agelaius phoeniceus*) is seasonally high in the marshes. Ponds surviving into late summer and fall are undoubtedly important watering holes for birds and small mammals. The Pacific chorus frog (*Pseudacris regilla*) and the western toad (*Bufo boreas*) also utilize this habitat. This habitat is also utilized by the sensitive two-striped garter snake (*Thamnophis hammondi*).

Non-native Grassland - Small stands of non-native grassland, totaling approximately 35 acres, 17 acres of which occurs within the 325-acre Montana Mirador conservation area, can also be found throughout the Park, usually in areas of disturbance (SANDAG 2012). Eurasian grasses dominate these areas, generally between patches of sage scrub. The dominant non-native grasses include wild oat (*Avena barbata*), bromes (*Bromus madritensis* ssp. *rubens*, *B. hordaceous*, *B. diandrus*), foxtail fescue (*Vulpia myuros*), hare barley (*Hordeum murinum* ssp. *leporinum*), and English ryegrass (*Lolium perenne*).

Note that native grassland is often intermixed with non-native grassland; focused native

grassland surveys should be conducted in the Park if funding permits (see native grassland discussion, p. 19).

Birds which may be found utilizing this habitat include the grasshopper sparrow (*Ammodramus savannarum*) and various raptor species including northern harriers (*Circus cyaneus*).

Disturbed Habitat - There are approximately 21 acres of disturbed habitat within the Park, including tracts of land that now feature disturbed upland vegetation (SANDAG 2012). Approximately 1.61 acres of this disturbed vegetation occurs within the 325-acre Montana Mirador conservation area. Off-road vehicle activities, urban encroachment, and other disturbances have contributed to the establishment of disturbed habitat within the Park.

Artichoke thistle (*Cynara cardunculus*) is an invasive, exotic species that is quite common throughout the Park. Large stands of this plant can be found adjacent to developed, urban areas and just north of the parking lot for the Park. Disturbed lands also consist of non-native weeds, such as black mustard (*Brassica nigra*), short-pod mustard (*Hirschfeldia incana*) and fennel (*Foeniculum vulgare*).

Developed – There are approximately two acres of developed land within the Park, including parking lots and entrance roads (SANDAG 2012).

WILDLIFE

Due to the size and diversity of habitat within the Park, a variety of wildlife (invertebrates, amphibians, reptiles, birds, and mammals) inhabit the Park. A full list of species known to occur in the Park are included as Appendix A to this Plan.

Invertebrates - A variety of butterfly species, such as Behr's metalmark (*Apodemia mormo virgulti*) and California ringlet (*Coenonympha californica*), are found throughout the Park. Limited habitat of the Hermes copper butterfly (*Lycaena hermes*) host plant spiny redberry (*Rhamnus crocea*) exists in the Park.

Amphibians – A variety of frog and toad species are known to occur in the Park area. One species, the pacific tree frog (*Hyla regilla*), was observed on-site (City of San Diego 1993). The bullfrog (*Rana catesbeiana*) is occasionally found throughout the Plan area, usually in lowland aquatic habitats such as streams and ponds. This species is native to the eastern United States and was introduced into California. It is one of the largest anurans in North America, and preys on native frogs and toads.

Reptiles - Lizard species observed on-site include the side-blotched lizard (*Uta stansburiana*) and western fence lizard (City of San Diego 1993). Previous sightings of orange-throated whiptail have been recorded on-site (State of California 2002). Western rattlesnake (*Crotalus viridus)* has also been reported in the Park (Kelly, 2004). The San Diego alligator lizard

(*Gerrhonotus multicarinatus*), gopher snake (*Pituophis melanoleucus*), and San Diego horned lizard are additional reptile species expected to occur on-site.

Birds - Ample nesting and foraging habitat for many avian species exists on-site, and a wide variety of birds have been observed. Migratory birds species, such as Wilson's warbler (*Wilsonia pusilla*) and olive-sided flycatcher (*Contopus borealis*), are known to visit the Park. Anna's hummingbird (*Calypte anna*), Say's phoebe (*Sayornis saya*), common raven (*Corvus corax clarionensis*), Bewick's wren (*Thyromanes bewickii*), rock wren (*Salpinctes obsoletus*), California thrasher (*Toxostoma redivivum redivium*), lesser goldfinch (*Carduelis psaltria hesperophilus*), yellow-rumped warbler (*Dendroica coronata*), coastal California gnatcatcher (*Polioptila californica californica*), and fox sparrow (*Zonotrichia iliaca*) are among the perching bird species occupying habitat within the Park.

Several rock outcrop formations located throughout the site are embellished with "whitewash", indicating their use as raptor perches. Birds of prey observed within the Park include red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), northern harrier, Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*) and turkey vulture (*Cathartes aura*). Other species not observed within the Park, but likely to use the area, are golden eagle (*Aquila chrysaetos canadensis*), red-shouldered hawk (*Buteo lineatus elegans*), and sharp-shinned hawk (*Accipiter striatus velox*).

Owls and nighthawks are likely to occur within the Park. Species likely to utilize the habitat on-site include common barn owl (*Tyto alba*), great horned owl (*Bubo virginiansus*), lesser nighthawk (*Chordeiles acutipennis*), and common poorwill (*Phalaenoptilus nuttallii*). Burrowing owl (*Athene cunicularia*) is known from the nearby Black Mountain Ranch North development area but has not been observed within the Park boundaries.

Mammals - Direct observation of mammal species is very difficult due to their shy and sometimes nocturnal habits. Evidence such as scat, tracks, burrows, and dens aid in determining presence of various animals. Abundant signs of common species, such as coyote (*Canis latrans*), woodrat (*Neotoma* spp.), mule deer (*Odocoileus hemionus*), and cottontail rabbit (*Sylvilagus auduboni*), have been observed within the Park. Signs of large predators such as bobcat (*Lynx rufus*) and gray fox (*Urocyon cinereoargentus*) have been observed in portions of the Park (City of San Diego 1993), and mountain lions have also been reported in the Park (Mike Kelly, 2004). Habitat within the Park has a high probability of supporting a wide variety of animals, including rodents such as California ground squirrel (*Spermophilus beecheyi*), striped skunk (*Mephitis mephitus*), and long-tailed weasel (*Mustela frenata*). Raccoons (*Procyon totor*) and related species, such as the ringtail (*Bassariscus astutus*), could also occur within the Park.

An informal survey of the historic Park mine was conducted by Mike Kelly and a local bat expert several years ago. A minimal amount of bat guano was observed in the mine, and no bats were detected. This indicates single or occasional visits by a small number of bats. However, surveyors agreed that the mine could be used by bat species in the future, and a bat gate would be beneficial for this area (Mike Kelly, 2004).

WILDLIFE CORRIDORS

A wildlife corridor is a habitat connection between larger preserve areas that allow for wildlife movement, recruitment, and colonization between different core areas. Corridors are very important for large mammals, especially predators. These corridors link core resource areas that have high concentrations of sensitive biological resources which, if lost, could not be replaced or mitigated elsewhere. The Park is considered a core resource area. Corridors are defined or constrained by various factors, such as topographic features, habitat, availability of natural and passable open space, game trails, and/or urban pressures (e.g., noise, lighting, lack of vegetative cover, and domestic animals). There are three wildlife corridors that link to the Park (Figure 6): 1) The Del Mar Mesa corridor (#1 on Figure 6); 2) The Lusardi Creek corridor (#2 on Figure 6) linking the Park directly to San Dieguito and Lake Hodges; and 3) A corridor between from Black Mountain north to eastern Lake Hodges (#3 on Figure 6). These wildlife corridors ultimately allow for wildlife connections to Poway, Del Mar, Carlsbad, Santa Fe Valley and other core resource areas of habitat. It is important to maintain the wildlife corridors within and around the Park in order to preserve the diversity of animals within the Park.

SENSITIVE SPECIES

Several sensitive plants and animals occur within the Park and in the immediate vicinity (see Figure 7, Plants and Figure 8, Animals; see Figure 9 for more detailed vegetation and sensitive species within the 325-acre Montana Mirador conservation area). Others have not been observed but are expected due to the presence of favorable conditions and habitat. Below is a list of sensitive species observed on-site and sensitive species with the potential to occur on-site. These include MSCP covered species, species considered sensitive by the USFWS, CDFG, California Native Plant Society (CNPS), and Audubon Society (Blue List).

Table 3-5 of the City of San Diego MSCP Subarea Plan contains conditions for coverage for certain species, otherwise known as covered species. These species and the MSCP conditions for each are discussed further in this section. Specific management directives that can be implemented within the Park to fulfill the requirements of MSCP are given in Chapter 10 Section D for MSCP covered species that are known to occur on-site.

Sensitive Plant Species Observed On-site

Variegated dudleya (*Dudleya variegata*)

Status Federal/State: None/None

CNPS List, R-E-D: 1B, 2-2-2

Primary Habitat Associations: Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools

Life Form: Perennial herb

Blooming Period: May-June

Status On-site: Observed immediately offsite, east of Paraiso Cumbres. Some potential to occur in open coastal sage scrub and grasslands where they occur on clay soils.

MSCP Conditions: Area specific management directives must include species-specific monitoring and specific measures to protect against detrimental edge effects to this species, including effects caused by recreational activities.

San Diego barrel cactus (*Ferocactus viridescens*)

Status Federal/State: None/None

CNPS List, R-E-D: 2, 1-3-1

Primary Habitat Associations: Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools

Life Form: Shrub

Blooming Period: May-June

Status On-site: Present mostly on southeast facing slopes within recent burn areas; additional populations may be present as under story to coastal sage scrub and chaparral on steep slopes.

MSCP Conditions: Area specific management directives must include measures to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle.

California adolphia (*Adolphia californica*)

Status Federal/State: None/None

CNPS List, R-E-D: 2, 2-1-1

Primary Habitat Associations: Chaparral, coastal sage scrub, valley and foothill grassland, clay

Life Form: Shrub

Blooming Period: December-May

Status on-site: Present within coastal sage scrub and coastal sage-chaparral scrub, especially in rocky areas on-site.

MSCP Conditions: None

ATTACHMENT 4

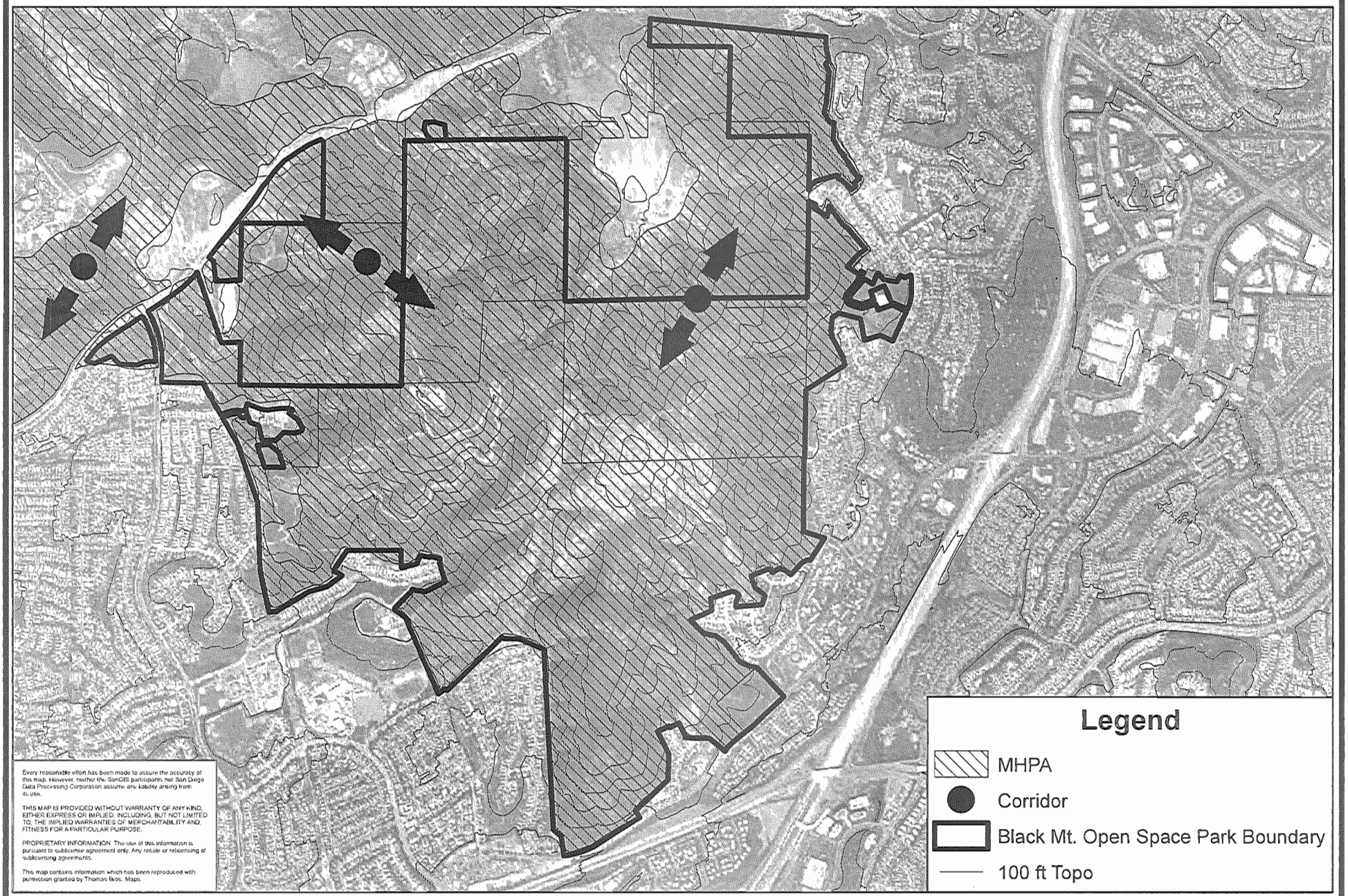

Figure 6

Black Mountain Open Space Park
Wildlife Corridors

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Miles

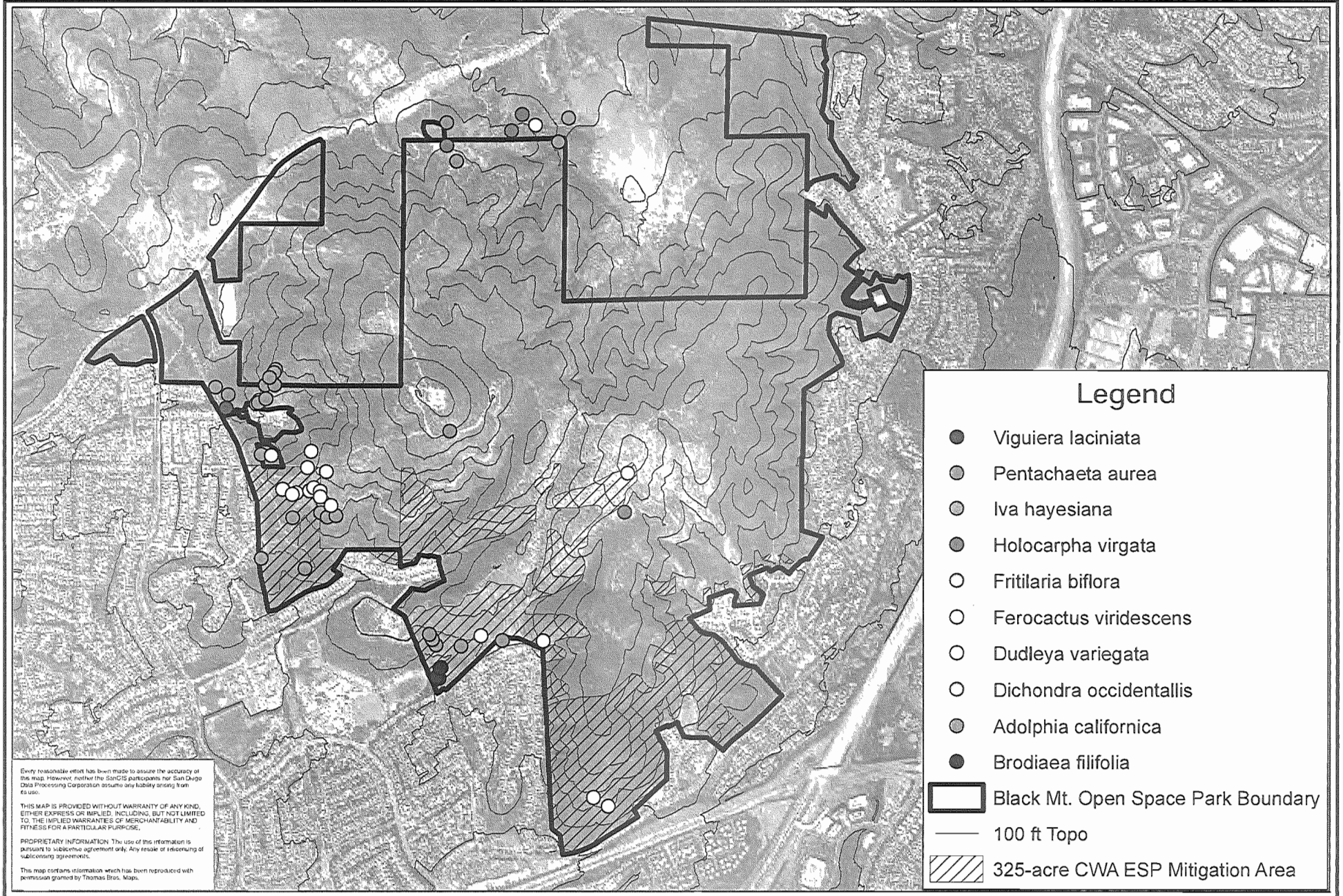

Figure 7

Black Mountain Open Space Park
Sensitive Plant Locations

N

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Sources: SanGIS, City of San Diego
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0 0.125 0.25 0.5 0.75 1
Miles

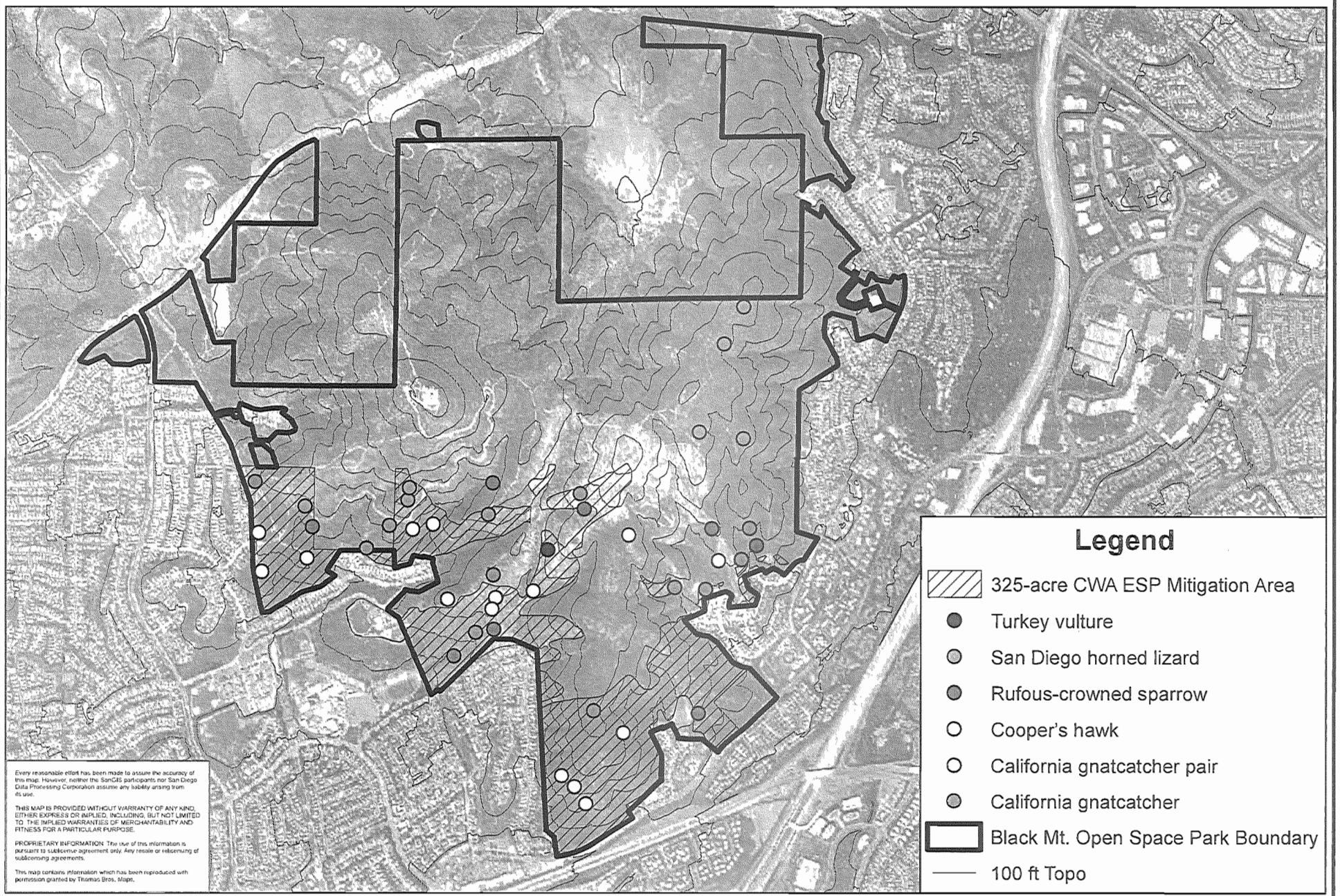

Figure 8

Black Mountain Open Space Park
Sensitive Animal Locations

SanGIS
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Sources: SanGIS, City of San Diego
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0 0.125 0.25 0.5 0.75 1
Miles

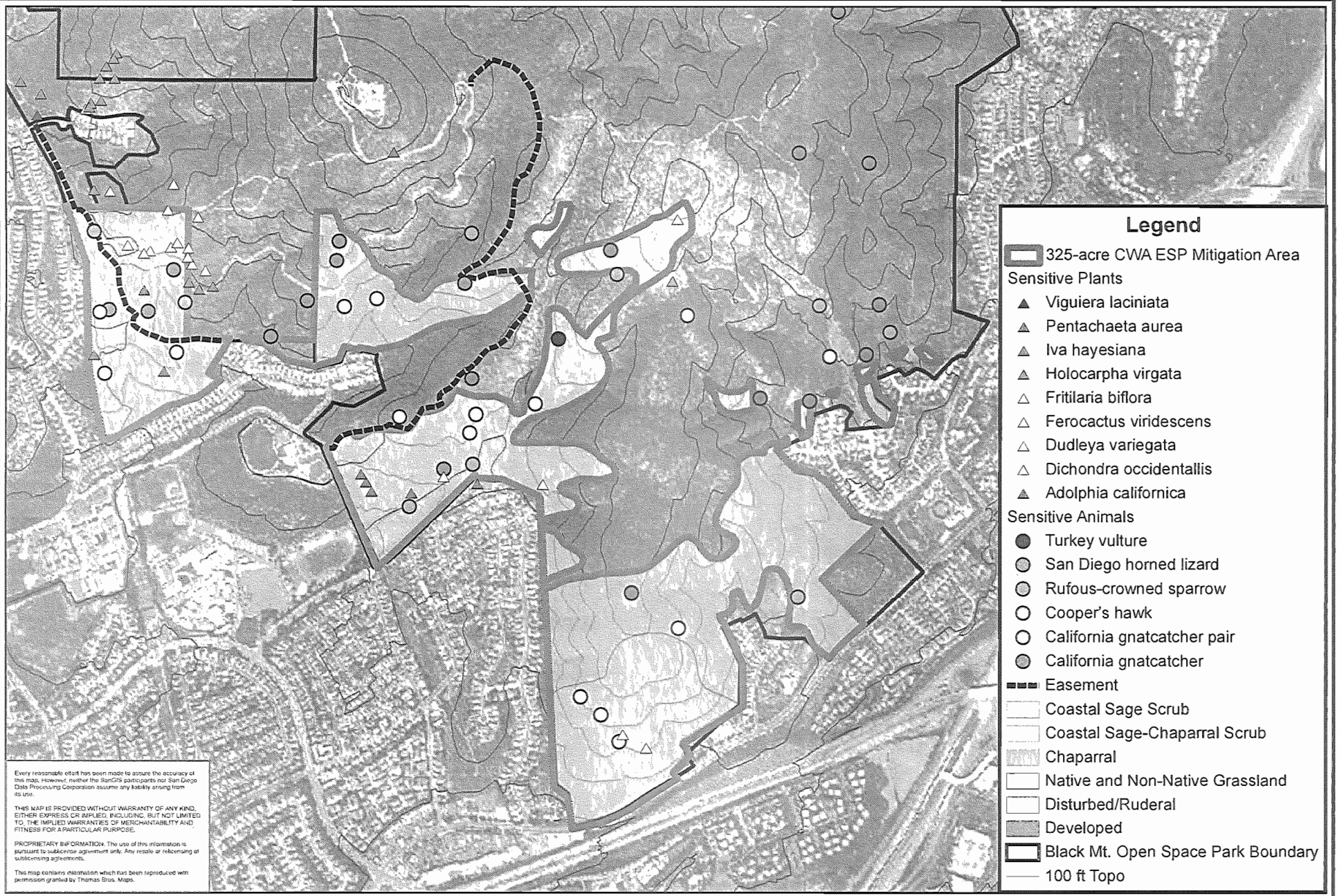

Figure 9

Black Mountain Open Space Park
CWA Montana Mirador
Sensitive Species Locations

SAN DIEGO PARK & RECREATION DEPARTMENT
AMERICA'S FINEST

SanGIS
We Have San Diego Covered!

Sources: SanGIS, City of San Diego
Created By: Tyler Friesen 8/8/11

0 0.1 0.2 0.4 0.6
Miles

Western dichondra (*Dichondra occidentalis*)
Status Federal/State: None/None
CNPS List, R-E-D: 4, 1-2-1
Primary Habitat Associations: Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grasslands
Life Form: Perennial herb
Blooming Period: March-July
Status On-site: A few small (one-foot diameter) patches of western dichondra were observed in the central portion of the site (northwest portion on Montana Mirador) in May 1989. Recent surveys have not been done at the right time of year to confirm the 1989 sighting.
MSCP Conditions: None

Ashy spikemoss (*Selaginella cinerascens*)

Status Federal/State: None/None
CNPS List, R-E-D: Considered, but rejected (too common)
Primary Habitat Associations: Undisturbed soils within chaparral and coastal sage scrub habitats
Life Form: Perennial herb (rhizomatous)
Blooming Period: Fertile in July or August
Status on-site: Throughout the Park on undisturbed soils in openings of chaparral and coastal sage scrub habitat.
MSCP Conditions: None

Thread-leafed Brodiaea
Status Federal/State: Endangered/Threatened
CNPS List, R-E-D: Considered, but rejected (too common)
Primary Habitat Associations: Undisturbed soils within grasslands and vernal pool habitats
Life Form: Perennial herb
Blooming Period: March through June
Status on-site: One location north of Sundevil Way was located during management activities in 2010; additional surveys conducted in 2013.
MSCP Conditions: None.

Spiny Redberry (*Rhamnus crocea*)

Status Federal/State: None/None
CNPS List, R-E-D: None
Primary Habitat Associations: Undisturbed soils within chaparral and coastal sage scrub habitats
Life Form: Perennial shrub

Blooming Period: February through May
Status on-site: Throughout the Park in chaparral and coastal sage scrub habitat.
MSCP Conditions: None
Sensitive Plant Species With Potential to Occur On-site

San Diego thornmint (*Acanthomintha ilicifolia*)
Status Federal/State: FT/SE
CNPS List. R-E-D: 1B 2-3-2
Primary Habitat Associations: Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, clays
Life Form: Annual herb
Blooming Period: April-June
Status On-site: Not observed. Possible in areas of grassland or opening in coastal sage scrub where they occur on clay soils. While past the blooming period, dried inflorescences would have been detectable during survey period. A substantial population has been documented within the adjacent Black Mountain Ranch area.
MSCP Conditions: Area specific management directives must include specific measures to protect against detrimental edge effects from the surrounding development.

Encinitas baccharis (*Baccharis vanessae*)
Status Federal/State: FT/SE
CNPS List. R-E-D: 1B 2-3-3
Primary Habitat Associations: Chaparral on sandstone
Life Form: Shrub
Blooming Period: August-November
Status On-site: Not observed. Moderate possibility of occurrence in open chaparral on ridgelines onsite; known from 4S Ranch immediately east of the study area.
MSCP Conditions: Based on BMPs, area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire; and appropriate male/female plant ratios. Management measures to accomplish this may include prescribed fire.

Orcutt's brodiaea (*Brodiaea orcuttii*)
Status Federal/State: None/None
CNPS List. R-E-D: 1B 1-3-2
Primary Habitat Associations: Meadows and seeps, valley and foothill grassland, vernal pools, clays
Life Form: Perennial herb

Blooming Period: May-July
Status On-site: Not observed. Potential habitat onsite is limited; grasslands and sparse coastal sage scrub on clay soils could be suitable.
MSCP Conditions: Area specific management directives must include specific measures to protect against detrimental edge effects.

Wart-stemmed ceanothus (*Ceanothus verrucosus*)
Status Federal/State: None/None
CNPS List. R-E-D: 2, 2-2-1
Primary Habitat Associations: Chaparral
Life Form: shrub
Blooming Period: January-April
Status On-site: Not observed. Moderate possibility of occurrence in low numbers in dense chaparral.
MSCP Conditions: Revegetation efforts within appropriate habitats must include restoration of this species. Area specific management directives for the protected populations must include specific measures to increase populations. Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire. Any newly found populations should be evaluated for inclusion in the Park strategy through acquisition, like exchange, etc.

Sticky dudleya (*Dudleya viscida*)
Status Federal/State: None/None
CNPS List. R-E-D: 1B 2-2-2
Primary Habitat Associations: Coastal bluff scrub, chaparral, coastal sage scrub, rocky areas
Life Form: Perennial herb
Blooming Period: May-June
Status On-site: Not observed; however, habitat (rock faces and canyon walls) fairly inaccessible. Could occur in these areas.
MSCP Conditions: Area specific management directives must include specific measures to protect against detrimental edge effects.

San Diego goldenstar (*Muilla clevelandii*)
Status Federal/State: None/None
CNPS List. R-E-D: 1B 2-3-2
Primary Habitat Associations: Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools

Life Form: Perennial herb
Blooming Period: May
Status On-site: Not observed; surveys may have been too late in season to detect. Moderate possibility of occurrence; known from 4S Ranch immediately to the east of the study area. Potential habitat onsite is limited; grasslands and sparse coastal sage scrub on clay soils could be suitable.
MSCP Conditions: Area specific management directives must include monitoring of the transplanted population(s), and specific measures to protect against detrimental edge effects to this species.

California adder's tongue (*Ophioglossum californicum*)
Status Federal/State: None/None
CNPS List. R-E-D: 4, 1-2-2
Primary Habitat Associations: Chaparral, valley and foothill grassland, vernal pools (margins), mesic seeps
Life Form: Perennial herb (rhizomatous)
Blooming Period: December-May
Status On-site: Not observed; the species is easily observed in the springtime. However, surveys may not have been at the right time to detect this species.
MSCP Conditions: None

Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)
Status Federal/State: None/None
CNPS List. R-E-D: 1B 2-2-2
Primary Habitat Associations: Chaparral
Life Form: Shrub
Blooming Period: April-June
Status On-site: Not observed; however, has been found adjacent to the site in the southwest portion of Black Mountain Ranch. There is moderate potential for summer holly to occur on-site, especially in canyons where moisture is higher.
MSCP Conditions: None

Sensitive Reptile Species Observed On-site

Orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*)
Status Federal/State: None/CSC
Primary Habitat Associations: Coastal sage scrub and chaparral habitats with moderately open vegetation and patches of loose soils. The orange-throated whiptail is found only in extreme

southwest California, west of the mountains in San Bernardino County, Riverside County, and San Diego County and south to northern Baja California, Mexico. The orange-throated whiptail is threatened by loss of habitat as a result of urban and agricultural development throughout its range.

Status On-site: Occurrences within the Park are documented in the NDDB and suitable habitat exists throughout the Park.

MSCP Conditions: Area specific management directives must address edge effects.

San Diego horned lizard (*Phrynosoma coronatum blainvillii*)

Status Federal/State: None/CSC

Primary Habitat Associations: The horned lizard inhabits open coastal sage scrub, grassland, broadleaf woodlands, and chaparral and requires large open areas of sandy soil within these habitats. The species is found only in southwestern California from the coast to the foothills and valleys of the Penisular Ranges. This species is declining in numbers due to habitat destruction, commercial or hobby collecting, and the decline of native ant species that serves as the food source for horned lizards.

Status On-site: Horned lizards have been observed on the adjacent Water Department parcel by City staff. The horned lizard is likely to occur throughout much of the property due to the sandy substrates that are suited to the habitat requirements of the species.

MSCP Conditions: Area specific management directives must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.

Sensitive Reptile Species With Potential to Occur On-site

Red diamond rattlesnake (*Crotalus ruber*)

Status Federal/State: None/CSC

Primary Habitat Associations: Usually associated with open chaparral, woodlands, thorn and desert scrub in southwestern California from Morongo Valley, San Bernardino County and Riverside County southward to Baja California, Mexico.

Status On-site: It is highly likely this species occurs on-site since appropriate habitat is available and location records for this species occur in nearby Los Peñasquitos Canyon Preserve.

MSCP Conditions: None

Coastal rosy boa (*Lichanura trivirgata roseofusca*)

Status Federal/State: None/None

Primary Habitat Associations: The boa is a nocturnal snake found in brush land habitat with many boulders. It prefers to hide in the boulders and is very secretive. Coastal rosy boa is found

from extreme southern California to northern Baja California, Mexico. Although major portions of its habitat have been converted to urban or agricultural development, the major source of population depletion is probably due to private collectors and the pet trade.
Status On-site: This species was not observed on-site, but records of its occurrence in areas adjacent to the subject property exist. The presence of this species in adjacent habitat suggests areas within the property are likely to be occupied as well.
MSCP Conditions: None

Sensitive Bird Species Observed On-site

Northern harrier (*Circus cyaneus*)
Status Federal/State: None/CSC
Primary Habitat Associations: Salt marsh habitat, open grasslands, and sage scrub are regularly hunted by the northern harrier. This species may be active during most of the daylight hours; sometimes spending as much as 50 percent of the day in flight.
Status On-site: No nests were observed on-site. This species was observed foraging over the Park.
MSCP Conditions: Area specific management directives must: manage agricultural lands and disturbed lands (which become part of the preserve) within four miles of nesting habitat to provide foraging habitat and include an impact avoidance area (900 foot or maximum possible within preserve) around active nests.

Cooper's hawk (*Accipiter cooperii*)
Status Federal/State: None/CSCPrimary Habitat Associations: Cooper's hawk breed almost exclusively in oak woodland habitats. They can be found foraging over a variety of habitat including oak woodland, riparian areas, and upland habitats, such as non-native grassland or coastal sage scrub. Cooper's hawk is a common migrant and a rare summer resident in San Diego County.
Status On-site: No nests were observed on-site. This species was observed foraging over the Park.
MSCP Conditions: Area-specific management directives must include 300-foot impact avoidance areas around active nests and minimization of disturbance in oak woodlands and oak riparian forests.

Coastal California gnatcatcher (*Polioptila californica californica*)
Status Federal/State: FT/CSC
Primary Habitat Associations: The gnatcatcher shows a preference for open Diegan coastal sage scrub or southern succulent scrub that has a predominance of California sagebrush (*Artemisia*

californica) and flat-top buckwheat (*Eriogonum fasciculatum* ssp. *foliolosum*). Other shrubby species present may include lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and California encelia (*Encelia californica*).

Status On-site: California gnatcatchers are located throughout the Park except in those areas heavily dominated by chaparral. Eleven pairs and seven individuals were found within the 325 acres of Montana Mirador (City of San Diego 1993).

MSCP Conditions: Area-specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the MHPA may occur between March 1 and August 15.

Coastal rufous-crowned sparrow (*Aimophila ruficeps canescens*)

Status Federal/State: None/CSC

Primary Habitat Associations: The coastal rufous-crowned sparrow generally occurs on the steeper slopes flanking floodplains. Some preference is shown for open, low-growing, and rockier terrain within coastal sage scrub habitat. The bird also favors grassy areas in scrub, and is known to colonize successional vegetation following brush fires.

Status On-site: The coastal rufous-crowned sparrow is found throughout the park, typically on slopes associated with ravines or drainages.

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

Bell's sage sparrow (*Amphispiza belli belli*)

Status Federal/State: MNBMC/CSC

Primary Habitat Associations: Sage sparrows typically inhabit dense chaparral habitats, but the species has been documented in coastal sage scrub habitat as well as vegetation communities dominated by chamise.

Status On-site: Bell's sage sparrow has been observed throughout the park, mostly in chamise chaparral and chaparral-coastal sage scrub dominated by black sage.

MSCP Conditions: None

White-tailed kite (*Elanus leucurus*)

Status Federal/State: None/None

Primary Habitat Associations: Kites nest in riparian woodlands, oaks, and sycamores. Kites can also be found foraging over grasslands and open fields.

Status On-site: No nests observed on-site. White-tailed kites have been documented flying over the Park. This species is dependent on riparian habitat for breeding and, therefore, can only be expected to utilize the Park for foraging.
MSCP Conditions: None

Turkey vulture (*Cathartes aura*)
Status Federal/State: None/None
Primary Habitat Associations: Turkey vultures have been known to nest in hollow stumps, caves, or old buildings. Turkey vultures forage over grasslands and open fields.
Status On-site: No nests observed on-site. Turkey vultures have been documented flying over the Park.
MSCP Conditions: None

American kestrel (*Falco sparverius*)
Status Federal/State: None/None
Primary Habitat Associations: American kestrels nest in natural cavities, such as woodpecker holes or cliff nook. This bird species forages over a wide variety of open habitats, such as grassland and coastal sage scrub.
Status on-site: No nests observed on-site. American kestrels have been documented flying over the Park.
MSCP Conditions: None

Blue-gray gnatcatcher (*Polioptila caerulea*)
Status Federal/State: None/None
Primary Habitat Associations: Blue-gray gnatcatchers nest and forage in coastal sage scrub habitat.
Status On-site: Blue-gray gnatcatchers are located throughout the Park except in those areas heavily dominated by chaparral.
MSCP Conditions: None

Sensitive Invertebrate Species With Potential to Occur On-site

Hermes Copper (*Lycaena hermes*)
Status Federal/State: Federal Species of Concern/None
Primary Habitat Associations: Hermes copper eggs are laid exclusively on redberry (*Rhamnus crocea*), the larval host plant, which occurs in mixed coastal-sage chaparral habitat and is present on-site.
Status On-site: Recent Hermes copper surveys were negative within the Park (Deutschman et al., 2010); however, historic surveys documented the butterfly in areas immediately south of the

park (Klein 2003), and potential habitat for Hermes copper exists on-site. The species is a narrow endemic (occurring only in the San Diego area), with very limited known populations and may have experienced significant population declines as a result of the wildfires of 2003 (Faulkner and Klein, 2003).
MSCP Conditions: None. Not an MSCP covered species due to unknown conservation level and insufficient distribution and life history data.

Sensitive Bird Species With Potential to Occur On-site

Golden eagle (*Aquila chrysaetos*)
Status Federal/State: None/Fully Protected CSC
Primary Habitat Associations: Golden eagles typically nest on cliffs. The golden eagle forages over immense areas that include grasslands, woodlands, and open chaparral and sage scrub.
Status On-site: No golden eagles have been detected in the Park; however, NDDB records document-nesting sites in the San Pasqual Area north of the park. There is potential foraging habitat for golden eagle on-site. However, it is estimated that only 30 breeding pairs are left in San Diego County, making this species a very rare occurrence.
MSCP Conditions: Area-specific management directives for areas with nest sites must include measures to avoid human disturbance while the nest is active, including establishing a 4,000-foot disturbance avoidance area within preserve lands. Area-specific management directive must also include monitoring of nest sites to determine use/success.

Sharp-shinned hawk (*Accipiter striatus*)
Status Federal/State: None/CSC
Primary Habitat Associations: This species is a winter migrant in San Diego County in any woodland habitat except deserts.
Status On-site: Sharp-shinned hawks have not been documented on-site. Sharp-skinned hawks have not been documented nesting in San Diego County but may forage here while migrating through. The likelihood of this raptor occurring in the Park is moderate because appropriate habitat occurs on-site and because the species has been documented on adjacent property.
MSCP Conditions: None

Red shouldered-hawk (*Buteo lineatus elegans*)
Status Federal/State: None/None
Primary Habitat Associations: Red shouldered-hawk is a resident bird of prey which typically utilizes woodland edges, grasslands, and agricultural areas, but may also use a variety of other habitats.
Status On-site: This species was not observed in the Park but it is likely that the raptor occurs on-site since appropriate habitat is available.
MSCP Conditions: None

FEDERAL AND STATE STATUS

FE = Federally endangered

PE = Proposed for federal listing as endangered

FT = Federally threatened

PT = Proposed for federal listing as threatened

C = Candidate for federal listing

MNBMC = Migratory Nongame Birds of Management Concern

SE = State Endangered

SR = State rare

ST = State threatened

Fully Protected = Cannot be taken without a permit from DFG or Fish and Game Commission

CSC = California Special Concern Species

None = No status

CALIFORNIA NATIVE PLANT SOCIETY

LISTS	R-E-D CODES
1 = Plants of highest priority 1A = Species presumed extinct in California 1B = Species rare, threatened or endangered in California and elsewhere. These species are eligible for state listing. 2 = Species rare, threatened, or endangered in California but which are more common elsewhere. These species are eligible fo state listing. 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed. 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their population.	R (Rarity) 1 = Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time. 2 = Occurrence confined to several populations or to one extended population. 3 = Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported. E (Endangerment) 1 = Not endangered. 2 = Endangered in a portion of its range. 3 = Endangered throughout its range. D (Distribution) 1 = More or less widespread outside California 2 = Rare outside California 3 = Endemic to California

Cactus wren (*Campylorhynchus brunneicapillus*)

Status Federal/State: Bird of Conservation Concern/Species of Special Concern
Primary Habitat Associations: Large patches of Opuntia and/or Cholla cactus.
Status On-site: This species was not observed in the Park but cactus habitat restoration projects are creating suitable habitat for cactus wren.
MSCP Conditions: The restoration of maritime succulent scrub habitat as specified in the Otay Ranch RMP and GDP must occur at the specified 1:1 ratio. Area specific management directives must include restoration of maritime succulent scrub habitat, including propagation of cactus patches, active/adaptive management of cactus wren habitat, monitoring of populations within preserves and specific measures to reduce or eliminate detrimental edge effects. No clearing of occupied habitat may occur from the period February 15 through August 15.

Sensitive Mammal Species with Potential to Occur On-site

Mountain lion (*Felis concolor*)
Status Federal/State: None/None
Primary Habitat Associations: Mountain lions have a large home range that traverses a wide variety of habitats. Mule deer and rabbits are the main prey species of this cat.
Status On-site: Tracks tentatively identified as mountain lion have been documented in the Park. Because of the relatively undisturbed nature of the site and abundance of prey species on-site, there is a moderate likelihood that this species may occur on-site. However, as development begins to surround the park, the likelihood that mountain lion will be found on-site will become less likely.
MSCP Conditions: None

D. CULTURAL RESOURCES

Historic and prehistoric cultural resources in and around the Park have been investigated several times in the past. Archaeological surveys were conducted on the southern portion of the Park, known as Montana Mirador, as part of an EIR for the site (City of San Diego, 1993). No sites were identified during a records search or field survey of the site.

Most recently, a Black Mountain Open Space Park Cultural and Historic Resource Survey and Report was completed in February 2007 by ASM Affiliates, Inc. This survey and previous surveys identified a number of sites within the Park. Five previously unrecorded cultural resources and one isolated artifact was recorded during the archaeological survey. These include two rock cairns, one sparse shell scatter; one isolated bedrock mortar; one prehistoric quarry; and two isolated sherd of prehistoric ceramics. Previously recorded resources within the Park include two lithic scatters, a prehistoric quarry site, an isolated fragment of debitage, and the

Black Mountain Mine. Of particular note is the historic mine which is located on the North slope of Black Mountain at an elevation of 1,000 feet. The Black Mountain Arsenic Mine was mined for white arsenic (also known as arsenious oxide, arsenious acid or anhydride in the 1920s. Remnants of the mine still exist onsite. A nomination form for the site has been prepared for listing the site on the National Register of Historic Places. Additional recommendations regarding data collection and cultural resource protection are provided in the Black Mountain Open Space Cultural and Historical Resources Management Plan.

E. LAND USE AND RECREATION

Land Use and Approved Development

Existing land uses within and adjacent to the Park are shown on Figure 10. Existing developments and easements are shown on Figure 11. Adjacent land uses were included for the purposes of analyzing the edge effect that could affect the viability of the natural and cultural resources within the Park.

Known projects currently being developed or proposed for development adjacent to Park boundaries include the following:

Black Mountain Ranch Subarea Plan - This 5,098-acre residential project is northwest of the Park. The plan includes residential development of varying densities, mixed-use commercial, community parks, and residential areas and 1,945 acres of resource-based open space. Grading began in 2000. The project has been developed in conformance with the MSCP.

Black Mountain Water Treatment Plant - This 40-acre project is located west of the Park and east of the existing Black Mountain Reservoir. This project is not currently under construction but is approved. The project has been developed in conformance with the MSCP.

The Park contains multiple access easements for a variety of agencies including CWA, SDG&E, Pacific Bell, and other utilities. The CWA currently maintains water pipelines on-site. SDG&E's easements accommodate electric transmission, distribution power lines and SDG&E communications lines, along with associated manholes, transformers, switches and appurtenances. Pacific Bell, AT&T and other communication companies also own land on the peak of Black Mountain. These companies maintain antennas on the peak for which regular access is required.

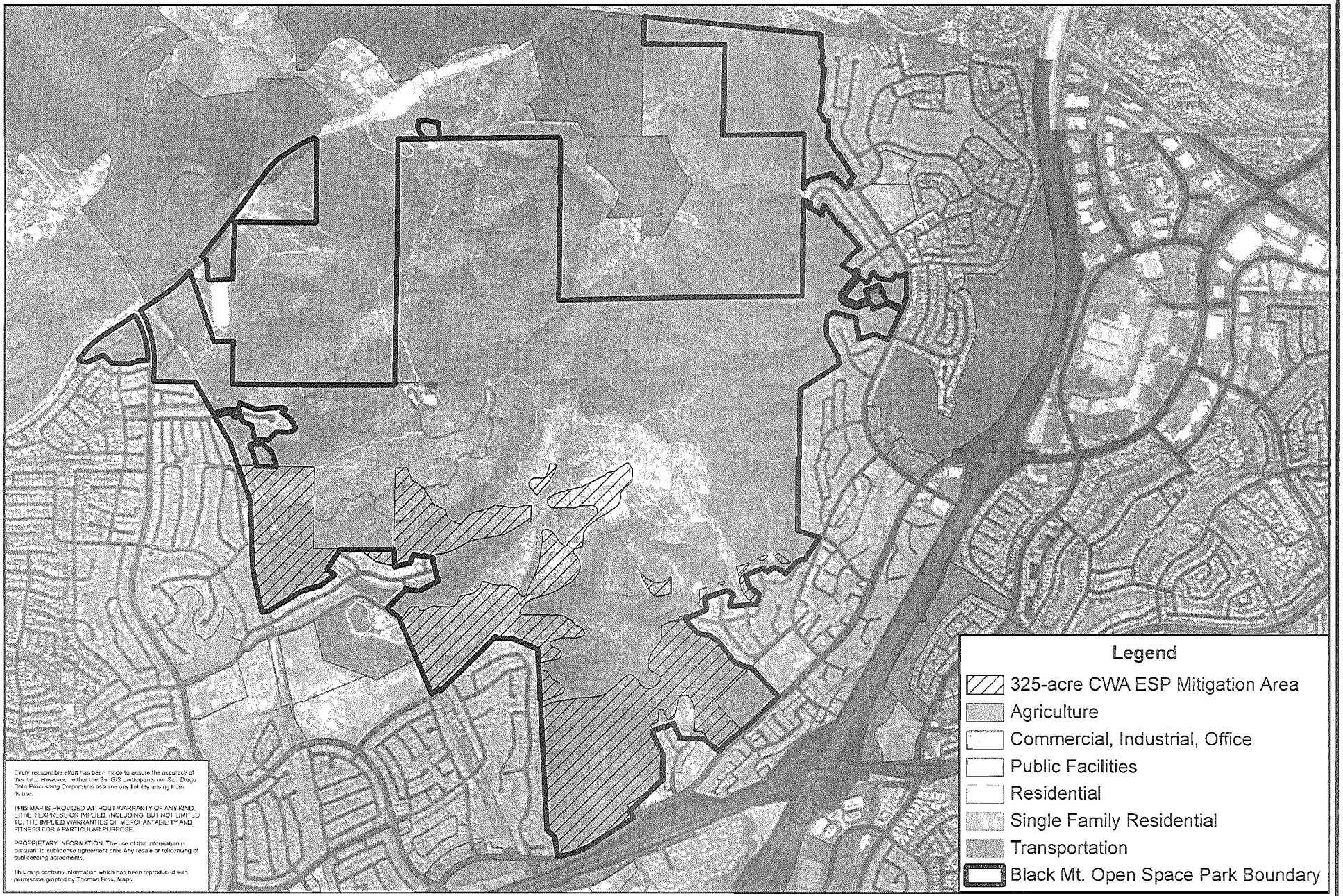

Figure 10

Black Mountain Open Space Park
Land Use

SanGIS
We Have San Diego Covered!
Sources: SanGIS, City of San Diego
Created By: Tyler Friesen 8/8/11

0 0.125 0.25 0.5 0.75 1
Miles

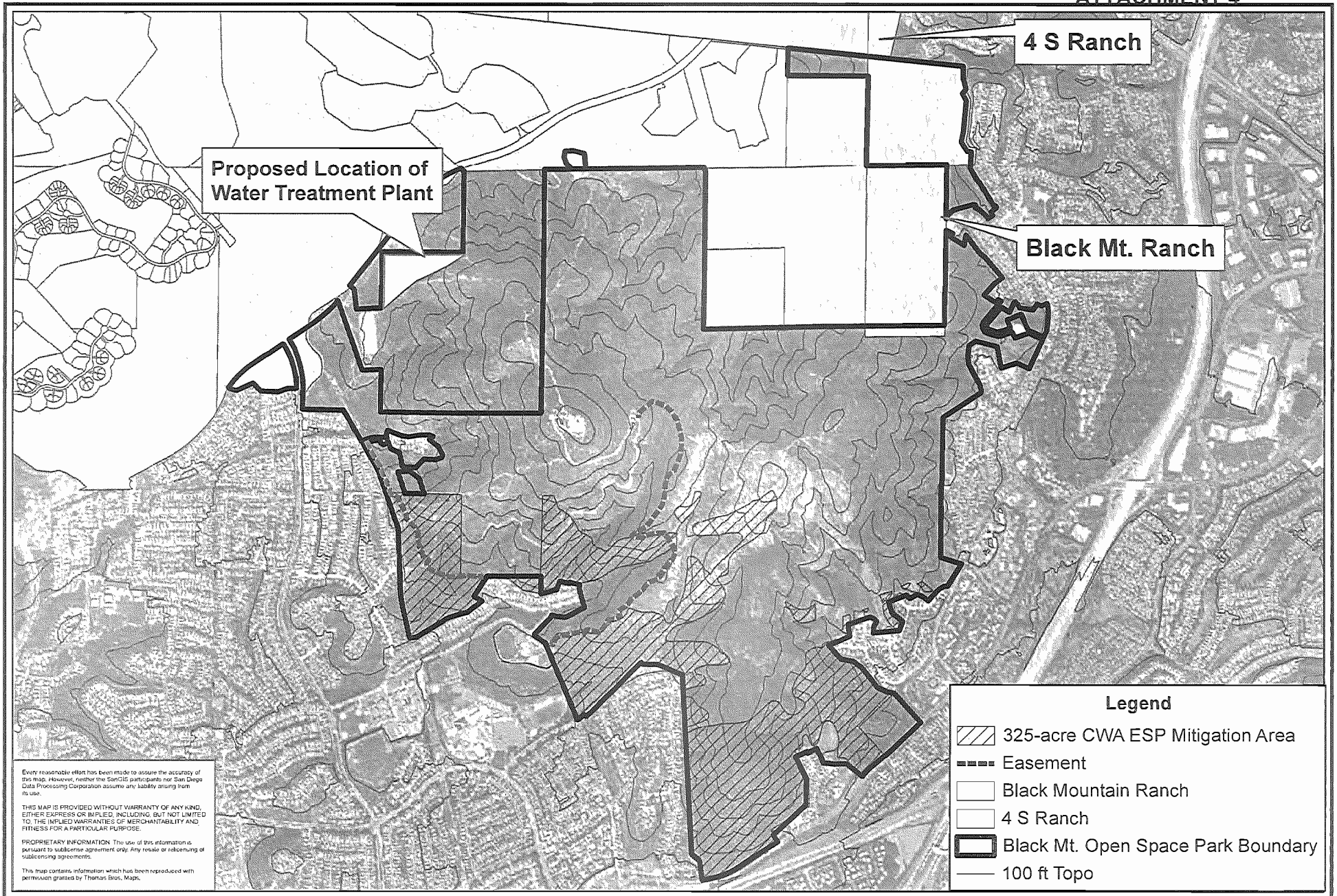

Figure 11

Black Mountain Open Space Park Developments and Easements

SanGIS
We Have San Diego Covered!
Sources: SanGIS, City of San Diego
Created By: Tyler Friesen 8/6/11

0 0.125 0.25 0.5 0.75 1
Miles

Recreation

Current passive recreational uses within the Park include hiking, bird watching, gliding and paragliding, and biking use on trails designated for each activity. Active recreational activities such as camping, ball fields, or off-road activities are not allowed in the Park; however nearby community parks allow some active uses such as ball fields. Off-road vehicles have been known to illegally use the site, which may cause erosion and damage to habitat.

The Park is surrounded by residential development to the south, west, and east. Residential development is currently proposed to the north. The City of San Diego Water Department currently maintains a reservoir to the west of the Park. The Water Department is also planning to construct a water treatment plant adjacent to the reservoir in the future (10+ years) when the need arises. In addition, the Water Department currently owns a 140-acre parcel immediately west of the Park. A portion of this land has been used by hang gliders and para-gliders as a launch point, both when the land was privately-owned and after the land was purchased by the Water Department. The landing area for the hang gliders and para-gliders is located on City land within the Water Department parcel. This use is currently not authorized by the City of San Diego without a permit; however, negotiations regarding such use are underway.

The only current authorized land uses within the 325-acre Montana Mirador conservation area are utility easements, which are discussed above. Potential problems associated with the easements may result from construction and maintenance crew activities, especially when equipment leaves designated access roads. Also, given the number of agencies with easements within the Park, there are many duplicative easements which cause fragmentation of habitat and lead to exotic species invasion. The siting of access roads can damage wetlands, impact aesthetic values, and increase erosion. Guidelines to avoid impacts associated with easements are given in Chapter 7, Section B.

There are several unauthorized trails throughout the Park. Many of these have been closed through on-going maintenance, and other are recommended for closure by the trail system proposed with this Plan. Where sensitive species are located near the unauthorized trails (Figure 9), they may be negatively impacted. Illegal BMX use has been an issue within the Park as well, and the City will explore options for reduction of this use through methods successfully employed at other parks.

4. MANAGEMENT ISSUES

Management of natural resources in the Park must consider impacts from human use, erosion, fire management, and surrounding development.

A. PUBLIC USE

The Park is used not only by adjacent communities but also attracts people from throughout the local and regional communities. The constant pressure of human use, including both passive and active recreational use, can damage the Park's natural and cultural resources. Presently, the Park and nearby open space is in almost constant use during the year for hiking, running, picnicking, nature appreciation, and bicycling. This degree of use and the Park's setting, as a large natural open space in an urban area, bring attendant problems such as litter control, graffiti, and illegal activities. Some Park users have created numerous trails, often in inappropriate, sensitive areas. Misuse and overuse results in damage to trails, hillsides, natural resources, and historic artifacts. This pressure will continue to rise as the population increases and new types of recreation develop which require open space.

There are several unauthorized trails that have negatively impacted native habitats and species by removing native vegetation and creating detrimental edge effects as well as causing erosion impacts. Most notably, several of the trails in the western portion of the conservation area are in close proximity to occupied gnatcatcher habitat. Guidelines for addressing these specific areas are provided in Chapters 6, 9, and 11.

Guidelines for public use are given in Chapter 6, Section A (Development Maintenance and Management Guidelines, New Development).

B. URBAN ENCROACHMENT

The Park's proximity to residential areas results in refuse dumping and visual and backyard encroachment into the Park. Often residents with property adjacent to publicly-owned open space consider it an extension of their backyards and build spas, decks, and/or fences; clear the area of native vegetation; and/or plant nonnative vegetation or gardens. In doing so, they are encroaching on public property. Nonnative landscape plants also have invaded the Park from adjacent land uses. Increased runoff from surrounding urban development introduces sediments and pollutants, like oil and heavy metals, which degrade the Park.

Several areas of urban encroachment occur within the 325-acre Montana Mirador conservation area. Areas along the southern boundary of the conservation area, and an area along the

westernmost border of the conservation are being impacted by adjacent development and invaded by non-native plant species (see Chapter 6, Section B, Management Areas 1 and 6). Additionally, some residences along the western border of the southern area of the conservation area may be encroaching into the Park. These areas should be investigated, and any illegal landscaping should be removed and the areas should be restored (see Chapter 12, Section E, Tasks to Be Implemented).

Guidelines to reduce urban encroachment are given in Chapter 6, Section A (Development Maintenance and Management Guidelines, New Development), and plan directives and priorities regarding encroachment are provided in Chapter 11, Section E.

C. EASEMENTS

There are several easements that allow utilities and landowners on the peak to access their facilities in the Park. Problems result from construction and maintenance crew activities, especially when equipment leaves designated access roads. Also, given the number of agencies with easements within the Park, there are many duplicative easements which cause fragmentation of habitat and lead to exotic species invasion. The siting of access roads can damage wetlands, impact aesthetic values, and increase erosion.

Easements occur in the western portion of the 325-acre Montana Mirador conservation area. The dominant trail beginning at the northwestern most point of the conservation area and traveling southeast then east up the mountain is a utility easement. This area has been subject to considerable edge effects and, in addition to the easement, a trail/road runs north/south along the western border which may be associated with the easements. Unauthorized trails should be closed and rehabilitated, and easements should be monitored to ensure that non-native species invasions do not occur and that trails are not widening beyond dedicated easement areas (see Chapter 12, Section E, Tasks to Be Implemented).

Guidelines to avoid impacts associated with easements are provided in Chapter 6, Section B (Utility Maintenance).

D. EROSION/SEDIMENTATION

Erosion and sedimentation problems exist throughout the Park, especially along hillsides where off-road vehicles have created a network of trails and eliminated the native vegetative cover, thereby, increasing erosion. Sand and gravel are carried from tributary canyons and surrounding slopes onto roadways, trails, and into streams within the Park during rainstorms. The eroded material entering the streams eventually is deposited in the Pacific Ocean. Prehistoric sites and riparian habitat are being damaged by erosion.

Some of the erosion and redeposition is part of the natural process of succession. Urban runoff,

storm drains, and human disturbance, however, are accelerating the natural process by concentrating flows, increasing flow velocity, and damaging slope vegetation and cultural resources. The resultant erosion is causing safety hazards, extreme siltation redeposition, and loss of valuable habitat. Areas of specific concern are steep trails up Black Mountain where off-road vehicle activity has exacerbated erosion problems.

Areas of erosion and sedimentation problems within the 325-acre Montana Mirador conservation area are primarily associated with unauthorized trails. All unauthorized trails should be closed and rehabilitated (see Chapter 11, Section E, Tasks to Be Implemented).

Guidelines for prevention of erosion and sedimentation are given in Chapter 6.

E. FIRE MANAGEMENT

Many important species of these habitats, especially chaparral, are fire dependent and require fire, or the chemicals from smoke, for seed scarification, or the cracking open of a seed coat that is necessary for seed germination and growth (Keeley, 1987, 1998). However, controlled burns are not feasible at this time due to the Park's urban setting. If controlled burns are considered in the future, a fire management study to analyze air quality, safety, and other potential impacts should be conducted, and all proposed burns should be reviewed and approved by the Fire Department. Fire history and guidelines for fire management are given in Chapter 6, Section E (Fire).

A brush thinning program along the wildlife/urban interface is currently implemented regularly by the Park and Recreation Department in open space areas throughout the City of San Diego (see Figure 12) in conformance with the Land Development Code regulations for Brush Management.

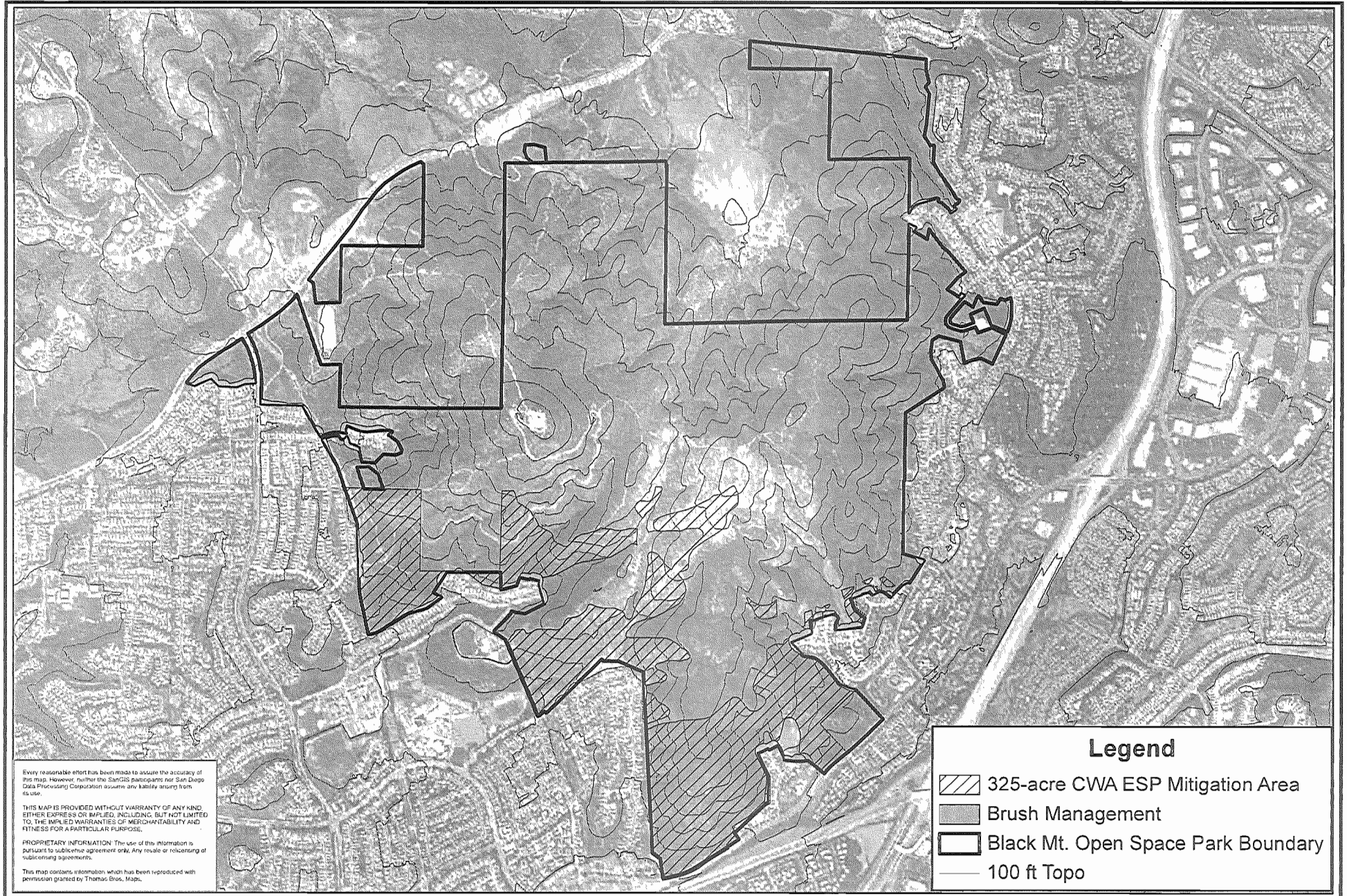

Figure 12

Brush Management within Black Mountain Open Space Park

SanGIS
We Have San Diego Covered!
Sources: SanGIS, City of San Diego
Created By: Tyler Friesen 8/8/11

0 0.125 0.25 0.5 0.75 1
Miles

5. RESOURCE MANAGEMENT

The City of San Diego will be restoring and enhancing natural, cultural, and historic resources within the Park. The City will also identify, develop, and implement maintenance and recreation projects within the Park. All projects will need to comply with the appropriate plans and obtain permits, as needed, consistent with CEQA, federal, state, and city requirements (e.g. MSCP). Any mitigation programs required should incorporate the guidelines set forth in this Plan, as appropriate.

The 325-acre Montana Mirador conservation area was used to mitigate biological impacts associated with the CWA ESP (BO 1-6-97-F-13). Management and monitoring of the site is required, including annual summary reports to USFWS, and shall be conducted in accordance with this Plan upon approval by the USFWS. No development is proposed in this area, and impacts to the area should be avoided. Any impacts to mitigation lands associated with the CWA ESP would require approval by the CWA, USFWS, and City of San Diego. Additional mitigation, including mitigation for impacts to sage scrub at a 5:1 mitigation ratio, would be required to offset any impacts to mitigation lands within the Park.

A. PARK FACILITY, RESTORATION, AND ENHANCEMENT PROJECTS

HABITAT RESTORATION AND ENHANCEMENT

Many areas in the Park need restoration to remove non-native, invasive species and replace them with the appropriate native vegetation, while others would benefit just from removal of non-native species providing the opportunity for natives to re-colonize the area naturally. Figure 13 identifies low, medium, and high priority opportunities for restoration. The need for most of this restoration effort arises from non-native invasion due to past land use activities, such as agriculture, grazing, and illegal encroachment or dumping. Opportunities for coastal sage scrub/chaparral restoration occur within the Park.

Enhancement involves only the removal of invasive and/or nonnative species or the provision of conditions designed to improve the habitat for a specific species, thereby encouraging additional growth or usage. Artichoke thistle, fennel, tree tobacco and non-native grasses are a few of the invasive, nonnatives that are targeted for removal.

Management Area 1: This area is located along and east of the water aqueduct easement east of Black Mountain Road and includes unauthorized paths up to the summit of Black Mountain.

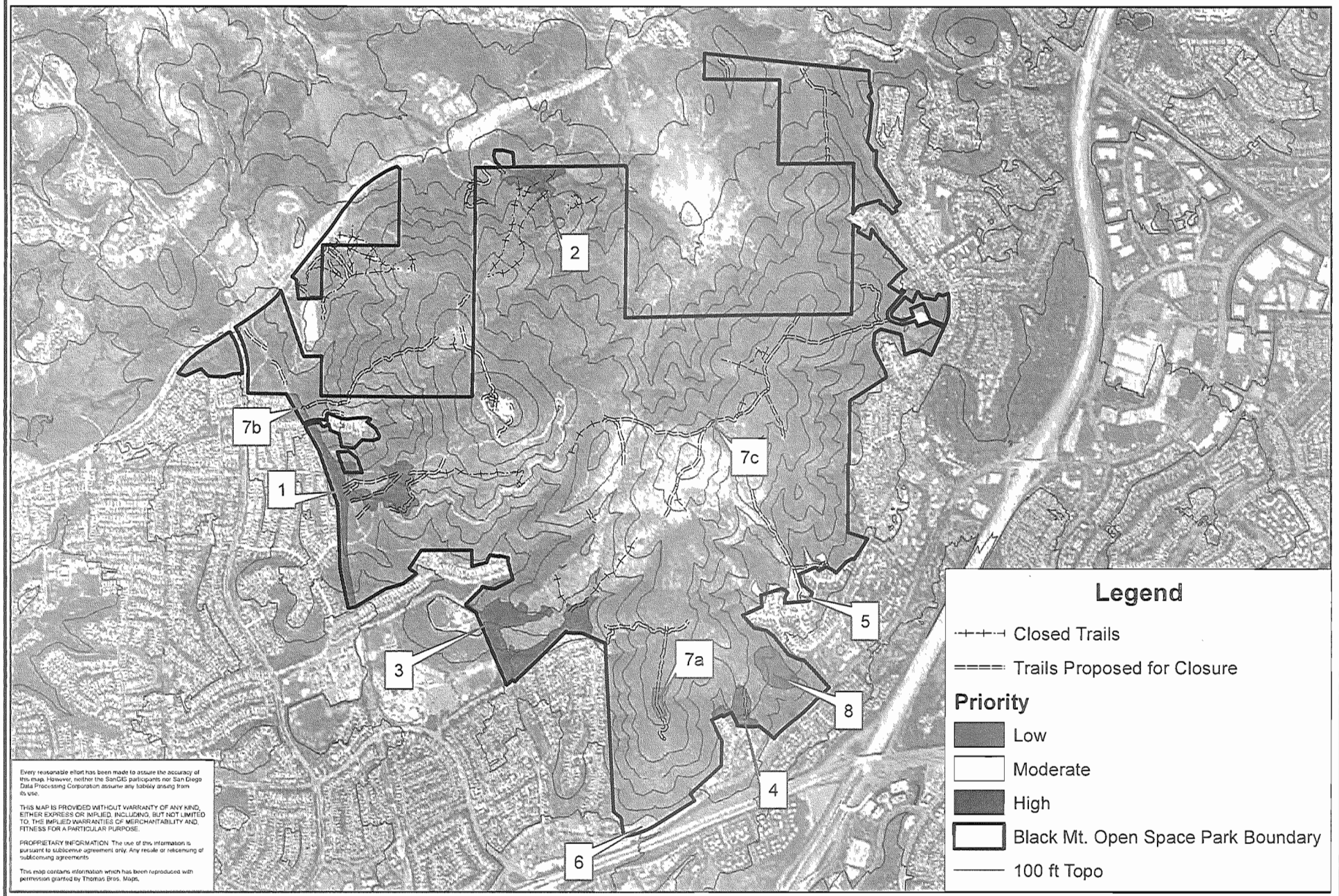

Figure 13

Black Mountain Open Space Park Restoration

Many of the sensitive species, including California gnatcatcher, are known to occur onsite occur within or near this area. The area is subject to significant urban edge effects as it is used as a recreation area by residents of nearby housing developments. Artichoke thistle and fennel have colonized this area for some time, along with grasses (e.g., false brome) and herbs.

The majority of Management Area 1 is located within the 325-acre Montana Mirador Conservation Area.

Management Area 1 is a high priority action area, and recommended management actions include weed eradication and habitat restoration of clay soils (could include program to expand offsite population of variegated dudleya) and unauthorized trails. This Plan proposes to close and preclude access to existing unauthorized trails, and to install signage to direct recreationists to appropriate trails. In addition to trail closures, the proposed trail system utilizes both existing authorized trails, development of new trails outside of Montana Mirador, and formalization of very limited areas of existing unauthorized trails within Montana Mirador to allow appropriate use within the Park and to discourage the use and creation of unauthorized trails.

Management Area 2: This area is near the parking lot for Black Mountain Park and the Miner's Ridge Trailhead. A large native grass population exists among considerable non-native vegetation. Non-native grasses and herbs are present in abundance and false brome appears to have established a foothold on clay soils. Management Area 2 is considered a high priority action area, and recommended management actions include weed eradication and native grassland habitat restoration on clay soils.

Management Area 3: This area is located east of Hilltop Community Park and Mt. Carmel High School in an area of clay soils. Immediately east of Hilltop Community Park is a large native grassland population dominated by *Nasella pulchra* and other natives; *Brodiaea filifolia* has also been found in this area. However, the area is subject to significant urban edge effects, and populations of artichoke thistle and fennel are present in grassland habitat and are expanding into coastal sage scrub. False brome and non-native herbs are also establishing a foothold on clay soils. This area is heavily used and the potential for accidental fires or arson is high. Management Area 3 occurs within the 325-acre Montana Mirador conservation area, and is adjacent to occupied gnatcatcher habitat.

Management Area 3 is considered a high priority action area, and recommended management actions include weed eradication, trash removal, adoption of the trail system proposed herein (including restoration of illegal trails), and installation of signage that identifies prohibited uses in the reserve. Such signs should be placed at obvious entrance areas or trails out of the residential areas. Considerable volunteer efforts have helped reduce invasives in this area and coordinated assistance with these groups is encouraged.

Management Areas 4 and 5: These areas are subject to significant urban edge effects. This area has been subject to illegal dumping and paintball activity due to its proximity to residential development. Large populations of artichoke thistle and fennel (*Foeniculaturm vulgare*) are present and areas expanding into coastal sage scrub occupied by coastal California gnatcatchers.

Management Area 4 is located within the 325-acre Montana Mirador conservation area, and is adjacent to occupied gnatcatcher habitat. Management Area 5 is located adjacent to the 325-acre Montana Mirador conservation area, and is also adjacent occupied gnatcatcher habitat.

Management Area 4 is considered a high priority action area, and Management Area 5 is considered a moderate priority action area. Recommended management actions include weed eradication, trash removal, and habitat restoration, signage and fencing. Signage will identify those uses prohibited in the reserve and be placed at trailheads. Fencing should be used in conjunction with signage where necessary to discourage public access and impacts to sensitive biological resources.

Management Area 6: This area lies at the southernmost portion of the park adjacent to Carmel Mountain Road. The relatively open nature of the coastal sage scrub and proximity to urban development makes this area susceptible to exotic species invasions and other problems associated with urban edge effects.

Management Area 6 is located within the 325-acre Montana Mirador conservation area and is considered a moderate priority action area. Recommended management actions include regular monitoring of this area, and weed eradication and habitat restoration if non-native species problems are detected. Additionally, any illegal encroachment into this area (and all other Park areas) should be noted and sent to Neighborhood Code Compliance [ATTN: Park and Recreation Zoning Investigator, Civic Center Plaza, 1200 Third Ave, MS 51N, San Diego, CA 92101-4106; (619) 236-5500] for investigation and corrective action.

Management Areas 7a, 7b and 7c: These areas are called out specifically as there was evidence of fire rings or past fires in the area.

Management Area 7a is a low priority area located within the 325-acre Montana Mirador conservation area and adjacent to occupied California gnatcatcher habitat. Recommended management actions include continued enforcement to limit reestablishment of fire rings.

Management Area 7b is a low priority action area located in the northwest corner of the park north of Maler Road. Recommended management actions include removal of fire rings, weed eradication and habitat restoration. Management Area 7c is a low priority area located in the center of the park along existing trails proposed for permanent closure. Recommended management actions include continued enforcement to limit reestablishment of fire rings.

Management Area 8: This area has historically been disturbed by BMX bicycle activities. The disturbed areas have been restored and enforcement actions continue to ensure that the area remains in a natural state.

Management Area 8 is located within the 325-acre Montana Mirador conservation area and is a low priority action area. Recommended management actions include continued enforcement to limit reestablishment of BMX activities. If illegal BMX activities begin again in the future, recommended actions include removal of bike jumps, reconstruction of natural topography and habitat restoration. Signage identifying those uses prohibited in the reserve should be placed at obvious entrance areas or trails out of the residential areas.

TRAIL DEVELOPMENT AND CLOSURES

The proposed trail system shown in Figure 2 has been developed in conjunction with the Black Mountain Citizen's Advisory Committee to address concerns related to user experience, resource protection and erosion. Proposed trail improvements and trails to be designated as legal should include the existing designated trails and conceptual alignments detailed in the Black Mountain Park Master Plan and/or developed through collaboration between the public, wildlife agencies and the City of San Diego. Trails should be located within and/or adjacent to existing utility access roads wherever possible to consolidate use areas; trails located within utility easements may be subject to periodic closure for utility construction or maintenance activities. Trails that are not collocated with utility access roads may range from 'single-track' to a maximum of four feet. In addition, trails should be sited to avoid close proximity to sensitive cultural resources, all sensitive plant populations, and all sensitive bird breeding areas while still maintaining the opportunity for interpretation of those resources.

Figure 2 identifies existing designated trails, viewpoints and entries. Revisions to the existing designated trails are proposed, including 3.45 miles of new trails and closure/restoration of 11.97 miles of existing trails, with 14.26 miles of existing trails to remain. Due to the steep terrain and rocky trail tread, the trail system is not considered appropriate for equestrians, and therefore is proposed for hiking and biking only (see Appendix D).

The primary purpose of the 325-acre Montana Mirador conservation area is the protection of sensitive species and habitats. No development or recreational activities should be developed in the conservation area, with the potential exception of a trail along the easement alignment or other appropriate location. A trailhead is proposed at Stoney Creek Road that connects through a previously graded area outside of Montana Mirador to an existing trail within the mitigation area. A second existing trail that connects to the potential future Penasquitos Village Park site also remains in the plan. These trails provide access for communities on the south and east side of

the Park. All other trails within the conservation area have either already been closed (0.79 miles) or are identified for closure and restoration (2.32 miles; see Figure 2).

PARK MAINTENANCE PROJECTS

The City of San Diego maintains its land within the Park for safety, sanitation, recreation and habitat management reasons. The following maintenance activities are conducted within the Park and, unless otherwise indicated, are the responsibility of the City of San Diego Park and Recreation Department:

Litter Control - once a week or as needed in parking lots and picnic areas; annual cleanup in other areas; and special volunteer projects for litter and illegal encampment removal as needed.

Removal of Illegally Dumped Material - as soon as possible, where needed.

Graffiti Removal - as soon as possible from Park facilities.

Maintenance and Installation of Gates, Chains, and Locks - as needed to prevent illegal entrance.

Signs - replacement, repair, and cleaning as needed.

Removal of Safety Hazards - safety hazards, such as fallen trees or hanging limbs, along the trails are removed and placed, as needed.

Removal of Improper Public Activities - activities, such as transient encampments, private encroachments on public land, tree houses, swings, or ropes in trees, placed in the Park illegally by the public are removed, as needed.

Removal of Exotic, Nonnative Plants - as and where needed, by City staff, contractors, or volunteers trained and/or supervised by City staff. Coordination with other agencies conducting similar activities in the watershed is desirable for optimal effectiveness.

Brush Management - brush removal and/or thinning 100 feet from structures on adjacent property, per City of San Diego Municipal Code 142.0412.

Trail Maintenance - major repair of trails once a year after the end of the rainy season to repair damage; minor repairs and maintenance done throughout the year as needed.

Hazardous Materials Removal - when identified, hazardous materials should be removed per approved procedures.

Parking Lot Repair - parking areas maintained once a year after rainy season to repair damage.

Power line, Pipeline and Right-of-way Maintenance - (San Diego Gas & Electric, CWA, Pacific Bell, AT&T, Public Utilities) - general maintenance throughout the year; emergency repair, as soon as possible.

The Park does not currently have public restroom facilities or picnic areas. However, if such facilities are installed in the future, maintenance would be in accordance with the City of San Diego guidelines for specific facilities (e.g. restrooms, picnic areas) and would obtain the appropriate permits (e.g. Site Development Permit).

B. CULTURAL RESOURCES

A Black Mountain Open Space Cultural and Historical Resources Management Plan, was prepared by ASM Affiliates in January 2008. A revised plan, dated October 2011 incorporates changes by the Park and Recreation Department and is incorporated herein. The goals, objectives, and recommendations from the plan are summarized below, along with the proposed timing for implementation:

Goal and Objective 1:

Develop a methodology for the management of Black Mountain's cultural resources.

Rec. No.	Recommendation	Timeline
1	Implementation of the Secretary of the Interior's Standards for the treatment of Historic Properties	Ongoing
2	Development of specific policies for maximizing the protection and preservation of Black Mountain's cultural resources. 1. Allow only passive public access to the mining-related resources. 2. Provide guided tours of historic resources under the supervision of qualified docents to manage and supervise public access 3. Trails should be rerouted to avoid non-mining related historic resources, such as prehistoric archaeological sites. The locations of these sites need to remain confidential.	Future
3	Consultation with the City of SD Historical Resources Board and staff to the Board for any projects or activities that may potentially affect the cultural resources. Recommendation 2 should also be done in consultation with the Board	Ongoing

Goal and Objective 2:

Develop Programs for preserving and promoting Black Mountain's Site Context and Integrity of Setting.

Rec. No.	Recommendation	Timeline
1	Facilitate a partnership with the Back Country Land Trust and/or the	Future

	San Diego Land Conservancy to create a proactive rural landscape preservation program through the use of conservation easement and tax credit initiatives.	
2	Consider purchasing development rights or entire parcels located adjacent to Black Mountain Open Space Park to ensure the protection of areas of immediate concern and provide additional parklands.	Future

Goal and Objective 3:

Safety for park personnel and the general public associated with the mineshafts and pits.

Rec. No.	Recommendation	Timeline
1	Limit public access [to the mine site]. Access should only be permitted when:	
	1. Guided tours are let by certified docents who are aware of hazards and trained in first aid and relevant emergency procedures.	Future
	2. All necessary actions have been taken to prevent public from accessing the area in which safety hazards pose a significant danger to the public. This may include fencing off the area of concern and/or diverting trails away from these locations	Complete
	3. Warning signs are posted in areas where appropriate for humans.	Complete
	4. Warning signs are posted in areas of potential danger to young children and pets.	Complete
2	Hazardous materials remediation and clean-up	
	1. Conduct a more extensive and detailed hazardous materials survey prior to any physical disturbance or development on or near the historic mining site and, if necessary:	Future
	2. Perform hazardous materials abatement work on the mining site's flue and other hazardous sites.	Future
	3. Seal all open mine shafts and pits to prevent park users from potentially hurting themselves or coming into contact with potentially toxic substances.	Future

Goal and Objective 4:

On-Site Heritage Interpretation of Black Mountain Cultural Resources

Rec. No.	Recommendation	Timeline
1	Development of a guided tour program of the historic sites of the park with trained docents who are familiar with the heritage of the park and safety precautions. Associated docent educational materials would also	Future

	be required.	
2	Development of interpretive signage in safe areas that will not cause a stress on cultural resources (such as at the entrance of the park and/or near the arsenic mining site).	Future
3	Closure or rerouting of certain trails so that they take the park visitor around sensitive and hazardous areas in order to improve park safety. Changes to the trails can also include the use of signage, fences, railings, ditches, hedges, rows of trees, topographic features, etc. for controlling movement through the park.	Con-current with Trails Plan Imple-mentation

Goal and Objective 5:

Off-site Heritage Interpretation of Black Mountain Cultural Resources

Rec. No.	Recommendation	Timeline
1	Developing an exhibit and interpretive program at an offsite location that is more conducive for high volume usage should be explored.	Future
2	Adapt the Black Mountain Mine National Register nomination and other related documents to a history book for publication and sale at San Diego area bookstores.	Future

Cultural Resource Management Plan natural resource protection and environment-related recommendations

Objective 1:

A Black Mountain environment with minimal levels of toxic substances.

Rec. No.	Recommendation	Timeline
1	Develop an abatement plan for hazardous mining materials with a professional consultant knowledgeable on this subject	Future

Objective 2:

Ensure bat habitat protection.

Rec. No.	Recommendation	Timeline
1	Complete biological surveys to determine the presence or absence of bats in the mineshafts.	Future
2	If bats are detected, install bat gates at the entrance of the mineshafts when shafts are sealed.	Future

6. DEVELOPMENT, MAINTENANCE AND MANAGEMENT GUIDELINES

The Park is open to the public and is used for a variety of purposes. In addition, utility easements and facilities and park facilities need regular maintenance and improvement. The following guidelines are provided for public safety and for protection of native habitat and wildlife while preserving the natural Park experience for everyone. If maintenance activity adversely impacts natural and/or cultural resources at a level requiring analysis under CEQA, mitigation as determined by the Development Services Department or other lead agency will be required. Additional guidance is provided in the Mitigation Options and Guidelines chapter. If any sensitive species are within the development area, specific management directives as outlined in Chapter 3 should also be implemented. The BMPs prescribed in the Park and Recreation Department Best Management Practices (BMPs) for Stormwater Pollution Prevention manual will be followed for all construction and maintenance activities (manual available from Park and Recreation Department).

Three hundred twenty-five acres in the southern portion of the site, known as Montana Mirador, were used to mitigate biological impacts associated with the CWA ESP (Figure 1). Management and monitoring of the site is required and shall be conducted in accordance with this Plan upon approval by the USFWS (BO 1-6-97-F-13). Any impacts to mitigation lands associated with the CWA ESP shall be approved by the CWA, USFWS, and City of San Diego, and may require CEQA review and/or additional permitting. Additional mitigation, including mitigation for impacts to sage scrub at a 5:1 mitigation ratio, will be required to offset any impacts to mitigation lands within the Park.

A. NEW DEVELOPMENT

Approved city, state, and/or federal permits (e.g. CEQA, MSCP) shall be required prior to beginning a development activity for any new development project within or adjacent to the Park. City of San Diego Park and Recreation approval of project design, implementation, and mitigation is needed to ensure the guidelines adopted in this Plan are being incorporated.

The primary purpose of the 325-acre Montana Mirador conservation area is to protect sensitive species and habitats. No new development or recreational activities are allowed in this area; any proposed trails will utilize existing paths and will be limited to the least sensitive areas. Any impacts to mitigation lands associated with the CWA ESP (conservation area) shall be approved by the CWA, USFWS, and City of San Diego. Additional mitigation will be required to offset any impacts to mitigation lands within the Park.

B. UTILITY MAINTENANCE

Any utility project or maintenance requiring City of San Diego approval (e.g. projects requiring a Right-of-Entry permit from the City) within the Park shall adhere to the following guidelines; projects that do not require City approval may coordinate with the City to develop a 'good neighbor policy' to address any concerns not covered by standard permitting (e.g. NCCP, CEQA, etc.).

Three hundred twenty-five acres in the southern portion of the site, known as Montana Mirador, were used to mitigate biological impacts associated with the CWA ESP (Figure 1). Management and monitoring of the site is required and shall be conducted in accordance with this Plan once approved by the USFWS (BO 1-6-97-F-13). Any impacts to mitigation lands associated with the CWA ESP shall be approved by the CWA, USFWS, and City of San Diego. Additional mitigation will be required to offset any impacts to mitigation lands within the Park (e.g. Montana Mirador).

1. Applicable city, state, and/or federal permits will be required prior to conducting any City-permitted activity. Additionally, all such activity will comply with guidelines in this Plan. Approval from the City of San Diego Park and Recreation is required for all maintenance activity design, implementation, and mitigation to ensure the guidelines adopted in this plan are being incorporated.
2. Within City of San Diego (San Diego City Council Policy 700-17), necessary underground public facilities are permitted to cross City open space areas if no permanent damage is sustained. Revegetation would be required, as well as any other required mitigation outlined in appropriate permits.
3. A Memorandum of Understanding or Letter of Agreement with each utility that conducts maintenance activities within the Park should be developed to outline specific conditions for maintenance of their facilities and easements.
4. All SDG&E, CWA, and City work crews should undergo training programs to make crews alert to the sensitivity of the habitats in which they are working. The City of San Diego, CWA, and SDG&E have training programs for crews working in environmentally sensitive areas, as well as a sensitive plant, animal, and habitat reference guide. Crews should be routinely trained and advised on how to minimize environmental impacts during maintenance activities.
5. Maintenance activities should be coordinated with a Park Ranger. If activities will result in impacts to resources, the Park Ranger will notify the City of San Diego Park and

Recreation Natural Resource Manager. Notification of appropriate City of San Diego personnel should also occur as soon as possible when emergency action is required.

6. If a maintenance activity could result in direct or indirect impacts to surrounding habitat or sensitive resources, the maintenance work area should be coned or flagged by a Park Ranger, Natural Resource Planner, or qualified biologist and/or archaeologist to aid the maintenance personnel in keeping the impact confined to the work area.

7. Prior to conducting any maintenance activity requiring a City permit that disturbs substrate, a site check for archaeological resources shall be conducted by a qualified archaeologist. Results should be given to the City of San Diego (Contact: Park Ranger or Natural Resource Planner for review by Development Services archaeologist) for review and evaluation. If the potential for indirect impacts exist, the site shall be flagged to keep work crews away. If direct impacts are found to be likely, the project should: 1) try to avoid the area; 2) minimize the impact; and 3) develop and implement a plan for recovery of resources subject to approval by the City contacts provided earlier. Native American consultation should be made, when appropriate, during impact analysis and mitigation design and implementation. A stewardship program for prehistoric and historic resources should be instituted for the Park in conjunction with a Cultural Resource Site Management Plan, outlined under Cultural Resource Restoration section in the Land Use Proposal chapter. A designated steward would then be involved in consultations about projects and possible impacts to cultural sites.

   Maintenance activities that do not require a City permit will follow the utility-specific internal environmental review process for cultural resources.

8. Regular maintenance activity and new construction should avoid nesting/breeding season of sensitive species as required by the Land Development Manual Biology Guidelines (approximately February - September) and existing utility agreements with the Wildlife Agencies.

9. If work crews find an unidentified, potentially sensitive plant, nest, or burrow in the maintenance area, a qualified biologist will be contacted. The biologist will determine appropriate action to avoid or minimize impacts prior to resuming work.

10. Utility easements and siting of access roads should be reviewed to identify changes which could be made to minimize erosion and the impact on sensitive areas and species, cultural sites, wetlands, and aesthetic values. No activity should increase the size of existing access roads. If re-routing of access roads occurs, the vacated area(s) should be

available for sensitive plant/habitat restoration. Duplicative access roads should not be allowed and should be restored as funding becomes available.

11. Parking or driving under all large native trees, especially oak trees, is not permitted in order to protect tree root system.
12. Stream crossings by vehicles shall be minimized and limited to previously designated crossing locations to reduce water quality impacts.
13. All construction and maintenance materials will be disposed of in an appropriate manner and not in or near wetlands.
14. All construction and maintenance activities should use BMPs for erosion control at construction/work site and should provide for park user safety, such as temporary signs and/or barricades.
15. Erosion on access roads will be minimized using appropriate measures, such as water bars.
16. For all grading work, dust will be controlled with regular watering.
17. Mowing, rather than grading, should be the method of vegetation removal if needed to eliminate/reduce fire hazard, to provide safe access, or to improve view of utility facility.
18. SDG&E shall conduct all operations within the Park according to "Operational Protocols" outlined in their Subregional NCCP, which is compatible with this NRMP. This NCCP serves as a permit with USFWS and CDFG and meets the requirements for the federal and state Endangered Species Acts.
19. SDG&E will conduct all operations within the Park according to their adopted Water Quality Construction Best Management Practices Manual and Handbook.
20. Additional guidelines for CWA maintenance/emergency activities include:
    - Maintenance activities should avoid being conducted during the rainy season when soils are wet;
    - All vehicles, personnel, and equipment should remain within the approved easement;
    - Any accidental damage to Park habitat outside the easement will be mitigated per the Mitigation Options and Guidelines section outlined in this Plan; and
    - Within CWA easements (see Figure 11), temporary impacts shall be mitigated through on-site restoration, where feasible. Riparian woodland trees, however, should not be replaced where they could result in damage to pipelines from root systems. This permanent impact should be mitigated through habitat creation,

restoration, or enhancement in an appropriate location, and off-site areas should be utilized if on-site opportunities are not available. Mitigation sites for impacts within the Park shall be located within the Park, whenever possible. Mitigation details should be outlined as part of the permit process with appropriate agencies.

21. All maintenance activities will comply with Park and Recreation BMPs.
22. Maintenance activities should comply with Section 1.4.2, General Planning Policies and Design Guidelines, Roads and Utilities – Construction and Maintenance Policies, of the City of San Diego's MSCP Subarea Plan.

C. PARK MAINTENANCE

The following Park maintenance guidelines shall be followed within the Park:

1. If required, all applicable city, state, and/or federal permits shall be obtained prior to conducting any maintenance activity. Additionally, proposed maintenance activity shall comply with guidelines in this Plan.
2. If a maintenance activity could result in direct or indirect impacts to surrounding habitat or sensitive resources, the maintenance area should be coned or flagged by a Park Ranger, Natural Resource Planner, or qualified biologist and/or archaeologist to aid the maintenance personnel in keeping the impact confined to the work area.
3. Prior to conducting any maintenance activity that disturbs substrate, a site check for archaeological resources shall be conducted by a qualified archaeologist. Results shall be given to the City of San Diego (Contact: Park Ranger or Natural Resource Planner for review by Development Services archaeologist) for review and evaluation. If the potential for indirect impacts exist, the site shall be flagged to keep work crews away. If direct impacts are found to be likely, the project should: 1) try to avoid the area; 2) minimize the impact; and 3) develop and implement a plan for recovery of resources subject to approval by the City contacts provided earlier. Native American consultation should be made, when appropriate, during impact analysis and mitigation design and implementation. A designated steward would then be involved in consultations about projects and possible impacts to cultural sites. Follow the recommendations from the Cultural Resource Management Plan outlined in the Cultural Resources section in the Resource Management Section.
4. Access should be maintained for emergency and maintenance vehicles. Road maintenance should be limited to clearing or thinning brush and smoothing the road surface within the existing roadway.

5. All road repair and maintenance activity should be confined to the roads and easements themselves. Work should be planned and coordinated with appropriate personnel and agencies in advance to ensure no impacts occur to known sensitive biological and archaeological resources.
6. Whenever possible, maintenance and/or patrol vehicle activity should be minimized within the Park when soils are wet to avoid degradation of trails.
7. All fences and gates will be kept in good repair and, when necessary, promptly replaced.
8. All maintenance activities should use BMPs for erosion control and water quality at the work site and will be required to develop a Storm Water Pollution Prevention Program in accordance with the RWCB. Additional guidance on controlling erosion and protecting water quality is given in Chapter 7.
9. Replace road culverts with armored dips whenever appropriate for better erosion control.
10. Stream crossings by vehicles will be limited to reduce water quality impacts.
11. Trail maintenance will be initiated based on Park Ranger inspection and coordinated with biologist and/or archaeologist, as necessary.
12. Trails closures should be instituted to: allow native vegetation to recover; facilitate wildlife movement; protect archaeological sites and biological sensitive species or areas; allow added protection for sensitive species during breeding season; provide erosion control; ensure public safety; and allow for trail maintenance. Such closures may be temporary or permanent depending on the need.
13. Brush management activities (brush thinning) shall be done in accordance with City of San Diego Municipal Code.
14. Wildlife corridors shall be kept free of debris, trash, homeless encampments, and other obstructions to wildlife movement.
15. Park and Recreation BMPs will be followed for any construction or maintenance activities.
16. The potential release of toxic or extraneous materials from the adjacent development should be monitored and enforcement action taken as necessary.
17. A reporting and enforcement procedure should be developed to prevent residential and/or landscape encroachment into the Park.
18. Standard flood control channel and desiltation basin maintenance, such as clearing, erosion control, and dredging of existing channels and basins, should not be conducted

during breeding or nesting seasons of sensitive bird or wildlife species utilizing riparian habitat.

19. Natural materials should be used to stabilize river, creek, tributary, and channel banks within the Park. River, stream, and channel banks shall be stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife movement.

20. No berming, channelization, or man-made constraints or barriers to creek, tributary or river flows should be allowed in any floodplain within the Park unless reviewed by all appropriate agencies and adequately mitigated. Review shall include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.

D. TRAIL PLANNING, DESIGN, AND CONSTRUCTION

All trails shall be constructed according to the most-current Trail Policies and Standards – Open Space, available as Appendix K in the Consultant's Guide to Park Design and Development. Additionally, the following guidelines should be followed in planning and constructing new trails:

1. Development of new trails requires City of San Diego environmental review per state law California Environmental Quality Act (CEQA). In the case of a stream crossing, a CDFG streambed alteration agreement and/or ACOE permit may also be required. The trail plan included in this document will be permitted concurrently with the Plan.

2. The trail system should be sited within or adjacent to existing access roads whenever possible to consolidate uses.

3. Trail width should be minimized to reduce impacts consistent with the type of use on that trail and trail location. Maximum allowable trail width is 4 feet except where necessary for safety and/or disabled access (MSCP Subarea Plan Section 1.5.2, General Management Directives, Public Access, Trails and Recreation).

4. Where possible, new trails should be planned on north-facing slopes in chaparral, away from coastal sage scrub habitat of the threatened gnatcatcher (usually found on south-facing slopes) and all other sensitive habitat.

5. Any new trail construction resulting in subsurface disturbance should be monitored by a Native American consultant and/or qualified archaeologist for impacts to prehistoric and historic resources.

6. The design of new trails or rehabilitation of existing trails should avoid or minimize potential impacts to the greatest extent possible. Impacts should be determined through biological and cultural resource assessment survey.

7. Trails from adjacent areas should be limited in number. Possible locations should be studied in advance to avoid sensitive habitats and archaeological sites and minimize erosion, while allowing for reasonable public use.

8. Locate trails, view overlooks, and staging areas in the least sensitive areas of the Park. Locate trails along the edges of urban land uses adjacent to the Park, or the seam between lands 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.

9. Avoid paving trails unless management and monitoring evidence shows otherwise. An exception may be made for the paving of wheelchair accessible trails. 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 cross-joints, edge plantings of native grasses, and mulching of the trail.

10. Wheelchair accessible trails should begin and end at accessible staging areas. These trails should lead to accessible viewpoints and/or nature appreciation areas.

11. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.

12. Trails shall be relocated as necessary to avoid, protect and buffer endangered or sensitive species (including MSCP covered species), key wildlife breeding habitats, and archaeology sites with surface artifacts.

13. Alternative trail and access road surfaces should be considered for erosion control. Possible alternatives include: gravel; polymer-based compounds; mulching with organic or non-organic materials; and other measures, such as culverts or logs diagonally crossing the trail, should be used to control erosion. A concrete-treated base may be desirable in some locations for stability but should not be used unless absolutely necessary. Fiber matting should not be used as it is implicated in reptile mortality.

14. Erosion from construction of trails should be limited by:
    - Constructing trails parallel to slope contours with cross-slope toward downhill side of trail;
    - Embedding large rocks or logs perpendicular to trails wherever it must to directly cross a slope;
    - Using pipe culverts with riprap on downstream side of trail where water seems to concentrate; and
    - Embedding a course of large rocks along downhill edge of trail where natural drainage swales must be crossed. Additional guidelines to minimize erosion are given in the Erosion and Sedimentation chapter of this plan.
15. Trails should be located to avoid introducing adverse impacts, such as avoidance of slopes from adjacent residential development and of areas with highly erodable soils.
16. No new trails, with the possible exception of the existing utility easement, should be developed within the 325-acre Montana Mirador conservation area.
17. Trails shall comply with Section 1.5.2, General Management Directives, Public Access, Trails and Recreation, of the City of San Diego's MSCP Subarea Plan.
18. Trails should be rerouted to avoid non-mining related historic resources, such as prehistoric archaeological sites. The locations of these sites need to remain confidential.

E. FIRE

The Park is comprised primarily of chaparral and coastal sage scrub habitat, both of which are fire-evolved vegetation types. Two fires have been documented on-site by the U.S. Forest Service. One fire burned the entire site in 1943. Another fire burned the eastern portion of the site in 1979. It is also reported (Kelly, 2004) that fires occurred in Montana Mirador in the 1990s and on the adjacent Black Mountain Road in the 1980s. Fire management is an issue within the Park in order to protect the surrounding residents and homes. Fire management techniques, however, can also be used to minimize impacts to resources associated with fire abatement. General brush management, fire suppression, and resources protection measures are described below.

FIRE SUPPRESSION AND BRUSH MANAGEMENT

Coastal sage scrub and chaparral vegetation communities are adapted to a cyclical fire regime that contributes to new and more robust growth. Portions of the Park have burned without management intervention throughout the last century, and controlled burns are not feasible at this

time due to the Park's urban setting.

A brush thinning program in appropriate locations is a safer fire control method and is implemented regularly by the Park and Recreation Department throughout City of San Diego open space (see Figure 12). Brush management activities (e.g. brush thinning) should be done in accordance with City of San Diego Municipal Code regulations.

MANAGEMENT OF FIRE CONTROL ACTIVITIES

If a fire does start within the Park, the City of San Diego Fire Department is responsible for fire control. Their first priority will be to protect life and property. By working with the Fire Department to identify staging areas and access, impacts to sensitive resources associated with fire control activities can be minimized.

The City of San Diego Park and Recreation Department works with the Fire Department to regularly update maps that designate areas for access and staging and for natural resource protection during fire-fighting events.

7. TRAILS, PUBLIC USE AND RECREATION GUIDELINES

A variety of documents provide guidelines for public use within the Park, such as the MSCP Subarea Plan, and Rancho Peñasquitos and Black Mountain Ranch Community Plans. Below is a summary of all the public use guidelines that apply to the Park. Specific guidelines for construction of public use facilities, including trails, are given Chapter 6, Development, Maintenance and Management Guidelines.

A. TRAILS

The trail plan proposes addition of several miles of new trails to consolidate existing use patterns; replace steep, eroding trails that do not meet City trail standards; limit fragmentation and recreational impacts to wildlife; and improve user experience and scenic opportunities. Several trail segments have been identified for removal and restoration based on redundancy with existing or proposed trails, sustainability and/or maintenance concerns, failure to meet City of San Diego trail standards, or resource protection concerns. In addition, the regional trail system was reviewed as part of the process and the proposed trail system will connect to nearby communities and open space areas, and from there to the regional trail network. The proposed trail plan would satisfy this area of the City-Wide Trails Master Plan, and complies with the requirements for trails in Section 1.5.2, General Management Directives, Public Access, Trails and Recreation, of the City of San Diego's MSCP Subarea Plan.

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 or reroute the trail if necessary. Locate trails, view overlooks, and staging areas in the least sensitive areas of the Park.
2. Regularly assess use of open space areas and trails in and surrounding the Park (as determined by the Park & Recreation Department). Trails should be checked for erosion, particularly during and after the rainy season, overgrowth of adjacent vegetation, and condition of trail tread. Repair trails, adjust enforcement levels, and/or restore off-trail use areas and areas affected by erosion as soon as feasible.
3. Provide sufficient signage to clearly identify public access to the Park. 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.

4. Coordinate trail and Park development with growth in the planning area to identify the most appropriate access/staging areas.
5. Integrate Park and open space trails wherever possible to provide a continuous open space network, maximizing the utility with use of layout, fencing, signage, and landscape at access points.
6. Create a trail system which links Black Mountain with the regional trail and open space system to the extent feasible, and that provides reasonable linkage to other trails, loop trails and view points.
7. Provide safe pathways through open spaces and public utility easements, where appropriate, and pathways/sidewalks along roads.
8. Provide wheelchair accessible trails adjacent to accessible staging for use by wheelchair users and those with mobility difficulties.

Restrictions based on the land purchase requirements will be enforced, e.g. lands purchased as mitigation or with restricted state bond funds. Trails may be closed at the discretion of the Park and Recreation Department due to the following reasons:

- Unsafe or unsustainable trails
- Trails initiating opportunities for illegal activity
- Trails contributing to resource impacts (i.e. erosion, biological, etc.)
- New environmental concerns
- Other issues under which closure is warranted based on professional staff opinion

Proposed changes or additions to the trail alignments included in this document will be evaluated based on the MSCP, additional applicable regulations, if any, and the acquisition of appropriate permits. All changes must be authorized through an amendment to this plan and the Rancho Penasquitos Community Plan, or through concurrence of City, CDFG and USFWS staff.

B. PUBLIC USE GUIDELINES

The following guidelines should be enforced by the Park Ranger as designated by the City of San Diego Park and Recreation Department:

1. All trail users should remain on designated trails for protection of adjacent sensitive resources and for their personal safety. Signs should be used to direct public use to appropriate, designated trails.
2. Hiking and bicycling are allowed on designated trails only. Signs shall be installed to identify appropriate uses for designated Park trails. All undesignated trails are closed to Park users.
3. Domestic animals shall be on a leash at all times within the Park and will remain on designated trails and in public areas. Clean-up after pets is required per Municipal Code Section 44.0301.1.
4. All litter should be placed in garbage cans placed at trail heads and other locations in the Park. Trash receptacles should have appropriate lids to limit entrance by local wildlife and should be emptied on a regular basis.
5. Park rangers shall enforce State law, City ordinances, and Park policies.
6. Regular patrols to identify and control vandalism, off-road vehicle activity, poaching, and illegal encampments shall be conducted; these generally take place on a daily basis and should occur no less than once per week.
7. Subsequent to completion of a Notice to Vacate and in accordance with applicable codes, any encampments found shall be removed as soon as possible after consideration of biological concerns.
8. No unauthorized motorized vehicles, except emergency vehicles, Park managers, or maintenance personnel (i.e., CWA, SDG&E, Pacific Bell, AT&T), shall be allowed of their respective easement(s) in the Park without first notifying Park staff. Vehicle use must be restricted to existing access roads as much as feasible to avoid disturbance and/or destruction of habitat.
9. Graffiti and other effects of vandalism shall be removed/repaired, as soon as possible.
10. Any residential and/or landscape encroachment into the Park should be reported to the City of San Diego Code Enforcement Team.
11. Areas where dumping occurs should be checked regularly and barricaded, if deemed necessary, to discourage dumping.
12. Any identified hazardous waste shall be removed as soon as possible following appropriate hazardous waste material disposal guidelines. Areas should be signed within 24 hours of identification of the problem to indicate the presence of hazardous materials and made off-limits to public use.

13. All Park and Recreation Department BMPs will be followed.

14. Off-road or cross-country vehicle activity is an incompatible use in the Park, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate per Section 1.5.2, General Management Directives, Public Access, Trails and Recreation, of the City of San Diego's MSCP Subarea Plan.

15. Limit recreational uses to passive uses such as bird watching, photography, trail use and other appropriate uses. Locate developed picnic areas near Park edges or specific areas within the Park, 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.

16. Provide passive recreation for all ages and levels of disabilities.

C. RECREATIONAL USE GUIDELINES

Below is a list of recreational uses that are approved, conditionally approved, or not approved for the Park. Since all future recreational uses may not have been anticipated, any additional recreational uses that are not listed below must be approved by the Park and Recreation Department and receive all applicable permits before being conducted within the Park. If a wide variety of uses are being proposed within the Park that are not identified in this plan, the Citizens Advisory Committee for the Park may evaluate the proposed recreational uses and provide recommendations to the Park and Recreation Department. Note that the primary use of the 325-acre Montana Mirador conservation area is species protection and recreational use or development should not be proposed in this area.

APPROVED RECREATIONAL USES

Approved recreational uses within the Park include the following:

1. Hiking, including walking, jogging, wheelchairing, or running, is allowed within the Park on designated trails.

2. Mountain biking is allowed within the Park on designated trails. Mountain bikers must maintain a safe speed at all times.

RECREATIONAL USES REQUIRING ADVANCE APPROVAL

Recreational uses that require advance approval through the City of San Diego include the following:

1. Hang gliding, paragliding, or radio-controlled model glider operations may be conditionally approved if the requirements of Section 63.0201 of the City of San Diego Municipal Code can be met and discretionary approval can be obtained from the City of San Diego.

2. Group hiking activities, foot races, or other group events involving the approved recreational uses listed earlier may be allowed with the approval of the City of San Diego Park and Recreation Department. In some instances, approval from the 'Mayor's Office will be required. Groups exceeding 75 in number must obtain a Park Use Permit (PUP). A PUP is also required for weddings, athletic events, special park use activities, voice/music amplification, and any request which may require an additional permit from another City department/agency, regardless of the size of the group.

PROHIBITED RECREATIONAL USES

Active recreation, as well as passive recreational uses that are prohibited per the San Diego Municipal Code, are not allowed in the Park. In addition, passive recreational uses that are shown to impact sensitive species and/or habitats may be prohibited as necessary within specific times, seasons and/or areas of the Park.

8. MITIGATION OPTIONS AND GUIDELINES

Although the focus of the Park is on natural habitat, necessary structures and some maintenance activities will be required which may impact existing natural habitat and/or cultural resources. Biological and archaeological surveys are required prior to obtaining applicable city, state, and federal permits (e.g. CEQA) and any site disturbance. Additionally, all projects should comply with applicable guidelines outlined in this Plan, adopted by San Diego City Council. Approval of project design, implementation and mitigation by City of San Diego San Diego Park and Recreation Department will be required for all City-issued permits to ensure the guidelines adopted as part of this Plan and the MSCP Subarea Plan are being incorporated.

Impacts should be minimized or eliminated as much as possible during design, planning, and permitting phases. Maintenance activities should be planned in advance using the least physically disturbing methods, avoiding critical bird breeding seasons, using existing access ways, and restricting disturbance to the project area. Prior to any trail addition or other park development, the area to be affected should be surveyed for cultural resources as well as sensitive habitat, plant, and animal species at the appropriate time of year, and trails should be located in the least environmentally sensitive area. Only existing access ways are to be used for any maintenance activity in the Park.

All development and mitigation shall be in accordance with the City of San Diego's Land Development Code, or as required by the lead agency's regulatory requirements.

Three hundred twenty-five acres in the southern portion of the site, known as Montana Mirador, were used to mitigate biological impacts associated with the CWA ESP (Figure 1). Management and monitoring of the site is required and shall be conducted in accordance with this Plan once approved by the USFWS (BO 1-6-97-F-13). Any impacts to mitigation lands associated with the CWA ESP would require approval from the CWA, USFWS, and City of San Diego. Additional mitigation will be required to offset any impacts to mitigation lands within this portion of the Park, and impacts to coastal sage scrub habitats in this area, if approved, would require mitigation at a 5:1 ratio.

A. HABITAT MITIGATION

All habitat mitigation for project within the Park shall meet the requirements of the required permit process (e.g. CEQA, City of San Diego Land Development Code Biology Guidelines). If possible, preference should be given to mitigation, restoration and/or enhancement of habitats within the Park.

B. CULTURAL RESOURCE MITIGATION

Examples of development that could potentially impact archaeological sites within the Park include active recreation areas, trails, and visitor centers. Mitigation for these or other projects within the Park shall meet the requirements of the required permit process (e.g. City of San Diego Historic Resource Guidelines).

9. ENHANCEMENT AND RESTORATION GUIDELINES

These guidelines are provided for the enhancement and restoration of natural and cultural resources in the Park. For purposes of this Plan, enhancement is defined as those activities that reduce and/or eliminate negative impacts to natural habitat or cultural resources. Restoration is defined as activities that return a disturbed area to a natural condition or appropriate native habitat. Areas within the Plan identified for enhancement and/or restoration of habitat are shown in Figure 13.

A. NATURAL RESOURCE ENHANCEMENT

The following guidelines shall direct natural resource enhancement and within the Park:

1. Areas where sensitive bird species are likely to nest (i.e., southern willow scrub habitat, coastal sage scrub, cactus patches) or where sensitive plants are found will be closed to public access through the proposed trails plan or seasonally. Areas closed seasonally should be posted: "No entry during breeding/nesting season {provide appropriate dates}" or "No entry due to sensitive habitat/plants," as appropriate.
2. Known locations of MSCP covered species in the Park should be monitored, consistent with the frequency and methods set forth in the most current biological monitoring plan for the MSCP, to determine appropriate and necessary protective management and enhancement measures.
3. The Park database, including plants, sensitive species, avifauna, and large mammals should be updated every three years.
4. No trails that cross rivers or creeks are proposed. If such trails are proposed in the future, river and creek crossings should be cobble-lined for protection of the river/creek bed if bridges are not feasible or practical.
5. All the erosion and potential erosion areas should be vegetated with native vegetation or protected by other natural erosion prevention measures, such as trail design (e.g. drainage features, grade reversal), straw waddles or jute netting.
6. A program to control the spread of noxious plants, such as poison oak, along trails and identified public use areas should be implemented to keep those areas open to visitor use (see Chapter 12, Section E).
7. A program to eradicate non-native vegetation and replace it with native vegetation shall be designed and implemented, as funding permits, for any area currently dominated by

exotics, such as ice plant, pampas grass, castor bean, cape ivy, fennel, acacia, Japanese honeysuckle, pyrancantha, bottlebrush, sea fig, artichoke thistle, pine tree, tree tobacco, Brazilian pepper tree, eucalyptus, palm, desert artichoke, Virginia creeper (*Parthenocissus quinquefolia*), giant reed (*Arundo donax*), or tamarisk (*Tamarisk* sp.) in accordance with Section 1.5.2, General Management Directives, Invasive Exotics Control and Removal, of the City of San Diego's MSCP Subarea Plan. Aggressive non-native plant species, such as water hyacinth, arundo, tamarisk, pampas grass, artichoke thistle, and Russian thistle, should be surveyed for and removed semi-annually, when present, from biological buffers and sensitive habitats. When working in watersheds, the program should target upstream non-native removal first moving downstream to lower re-infestation. Priorities for which species should be removed first should consider: 1) Biology of the invasive species, such as time of flowering and reproductive capacity; 2) Immediacy of need; and 3) Benefits of invasive removal in increasing land available for sensitive habitats and/or for sensitive species habitats.

8. Research into the most recent information on the most effective eradication method(s) for a particular species should be the basis for development of an exotic species eradication program or initiation of any exotic removal. This information may be obtained through California Invasive Plant Council, UC Extension, local experts or others. Methods of removal requiring heavy equipment or other methods potentially harmful to native species may require environmental review to ensure against impacts to sensitive species.

9. Exotic plant removal activities should be scheduled to avoid sensitive bird breeding and nesting season as defined in the City of San Diego Land Development Code Biology Guidelines, or noise monitoring must be implemented.

10. Information on invasive plants and animals harmful to the Park should be provided to adjacent residents via mailings, contacts with community groups or other measures. Residents should be encouraged to voluntarily remove invasive exotics from their landscaping.

11. All herbicides shall be applied by a State licensed applicator. Herbicide application projects by City staff must receive a Pest Control Recommendation from the City Pesticide Control Advisor.

12. If non-native trees die or are removed, they shall be replaced with appropriate native trees with eventual goal of replacing non-native trees with native ones.

13. Predator control should be initiated as necessary on a case-by-case basis and as funding

permits. The following are specific guidelines for predator control.

- Trapping of non-native predators should be limited to strategic locations where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation.
- Predator control should be considered to be a temporary, short-term activity.
- A predator control program should only be implemented to address a significant problem that has been identified and is needed to maintain balance of wildlife in the Park.
- Predator methods shall be humane. Adequate shade and water should be provided and traps should be checked twice daily.
- Any domestic animal inadvertently trapped should either be released outside the Park or taken to the nearest animal shelter.
- If a predator control program becomes necessary, signs at access points should be installed to notify adjacent residents that trapping will occur and how to retrieve their pets.
- All predator control activities should be coordinated with MSCP staff.
- Any necessary state and/or federal permits shall be secured prior to implementation of trapping and predator control.

14. Coordinate with other agencies in the watershed to eradicate exotic species effectively. In order to effectively control invasive exotic plants within the Park, the jurisdictions upstream of Park also need to eradicate these species in order to stop re-infestation of downstream areas. Possible methods for establishing such a cooperative effort include a Memorandum of Agreement between involved parties or establishing a Weed Management Area through the County Agriculture Department.

15. Where exotics are removed from stream banks, temporary erosion control precautions may be required, especially if root systems are removed. In such cases, a CDFG streambed alteration agreement and/or ACOE permit may be required. Removal should occur only at times of low flow and no rainfall. Roots should only be removed if necessary to eradicate exotic species and the area revegetated as soon as possible. Sandbags, brow ditches, or similar erosion control methods should be used to keep sediment out of creeks and drainage courses.

16. Regular monitoring for re-infestation should also be done after initiation of a removal

program and remedial treatment taken as necessary.

17. When enhancing or restoring native habitats, the planting palette should utilize a mix of species type and ratio that closely matches the nearest surrounding natural habitat on similar slope, aspect and soil. Plants used for revegetation should be taken from donor sites in close proximity to the site, if possible. Other donor sites may be used if they are of similar ecotone and the site has been approved by the City of San Diego Park and Recreation Department.

18. Establish adequate buffers around sensitive plant populations to avoid trampling. Wherever possible, minimum buffer width should be 100 feet, especially in wetland habitats.

19. In locations where pollution control is needed, detention basins, treatment wetlands, grass filter strips, filtration trenches, and/or similar water quality treatment methods should be used, depending on the location and level of pollution. These pollution control measures shall meet the requirements of Section 1.4.2, Land Use Adjacency Guidelines, Drainage and Toxics, of the City of San Diego's MSCP Subarea Plan. Grass filter strips, placed in the runoff flow path, should be relatively flat in order to slow and distribute flow. The filter strips should be planted with native, erosion resistant plants, such as close-growing grasses (e.g., beardless wild rye grass (*Leymus triticoides*)).

20. Surveys to monitor deer and possible mountain lion population within the Park should be conducted at a reserve level and/or as part of regional monitoring efforts, as funding and/or staff time permits.

21. Periodic monitoring of wildlife corridors identified in the MSCP or through preserve and/or regional monitoring should be undertaken to determine species usage as identified from track, scat, or other signs.

22. Investigate any "new" corridors discovered to identify usage and degree of importance to wildlife.

B. CULTURAL RESOURCE ENHANCEMENT

The Cultural Resources Management Plan does not recommend the active enhancement of prehistoric and historic sites within the Park. The addition of the Black Mountain Arsenic Mine Site to the National Register of Historic Places would help ensure the protection of the site and compliance with the Secretary of the Interior's Standards for treatment of Historic Properties, as recommended in the Cultural Resources Management Plan. Implementation of the

recommendations in the CRMP included in the Resource Management chapter will provide for the long-term protection of resources.

C. HABITAT RESTORATION

The following guidelines shall guide habitat restoration activities within the Park:

1. Native vegetation should be restored in damaged or degraded areas. Areas that show signs of excessive activity should be closed and rehabilitated. The following are damaged areas which require restoration with native vegetation (see Figure 13):
    - Historical grazing and agricultural areas throughout the Park;
    - The riparian corridor in the northeast portion of the Park;
    - Areas disturbed by encroachment from surrounding land uses;
    - Unauthorized trails throughout the Park; and
    - Any roads determined to be duplicates and/or not to be necessary to serve utility maintenance.
2. Disturbed and upland areas should be planted with native trees where they are known to have existed historically, given appropriate existing conditions.
3. Plans for habitat restoration should consider historical use and habitat types in this area to help guide restoration efforts. In addition, planting palettes should utilize a mix of species type and ratio that closely matches the nearest surrounding natural habitat on similar slope, aspect and soil; restoration projects must plant native species which are locally common, are appropriate for the microhabitat, and will not be readily recognizable from the surrounding habitat upon maturity. Location specific planting plans, rather than a general park-wide plan, should be utilized for restoration and enhancement activities.
4. When restoring a native habitat, plants used in the revegetation effort should be taken from donor sites in close proximity to the site, if possible. Other donor sites may be used only if no significant genetic variation is expected and approved by the City of San Diego Park and Recreation Department Open Space Division. Seed from outside San Diego County should not be used.
5. Previous agricultural and grazing areas provide excellent opportunities for habitat restoration. Many of these areas have a high cover of artichoke thistle. A comprehensive eradication effort should be explored in areas where no habitat value exists and the entire area is covered with exotics.

6. Riparian and wetland habitats in the Park should be allowed to regenerate naturally, especially after removal of invasive exotics, except where active restoration is specified as a result of monitoring dependent on available funding; as a mitigation requirement; or as a means of reclaiming large areas previously occupied by exotic species if deemed advisable to reduce the threat of re-invasion by exotics.

7. Several unauthorized trails within the 325-acre Montana Mirador conservation area, specifically in the southwest portion of the park, are located in or immediately adjacent occupied California gnatcatcher habitat and are proposed for closure in the trail plan (see Figure 2 and Chapter 6 for management priorities).

8. Portions of the 325-acre Montana Mirador conservation area are being invaded by non-native grasses and other species which displace native habitat (see Management Areas 1 and 3, Figure 13). Special attention is required in these areas to eliminate non-native species and restore habitat as well as monitor the areas to prevent re-invasion.

D. SPECIFIC MANAGEMENT DIRECTIVES

Not all species occurring within the Park are expected to require additional species-specific management. It is expected, rather, that the guidelines provided in the Maintenance, Usage, and Development Guidelines chapter and the guidelines listed earlier in this chapter will provide optimal habitat conditions for most, if not all, species to maintain and/or thrive within the Park. There are some species, however, listed as MSCP covered species which may require additional management measures, as funding and staff permits, if monitoring indicates the general guidelines are not sufficient to maintain acceptable population levels.

Additionally, there are some non-native invasive animal species that pose serious threats to native species, therefore monitoring and management of this invasive animal species are necessary as part of the management program required by the MSCP. Before conducting any specific management directives, the action shall be evaluated to ensure that the proposed action shall not result in adverse impact to any other population of a MSCP covered species.

Variegated Dudleya (*Dudleya variegata*)

Area Specific Management Directives from the MSCP

Area specific management directives must include species-specific monitoring and specific measures to protect against detrimental edge effects to this species, including effects caused by recreational activities.

MSCP Specific Management Efforts

1. Approved trails should keep an appropriate distance, based on topography and other factors, from known populations in order to ensure that there is no trampling of the species by trail users.
2. A count of plants and/or habitat assessment at each known site should be collected in accordance with the current MSCP Biological Monitoring Plan to provide long-term data on the status of the species over time. This plant may not surface during drought years and, therefore, it may be useful to correlate annual surveys with rainfall and/or temperature.
3. Non-native weeds should be kept to a minimum near extant populations. Generally, this species occurs in rocky terrain with shallow soils amid coastal sage scrub. Soil disturbance and dense non-native grasses could deter seedling establishment.

San Diego Barrel Cactus (*Ferocactus viridescens*)

Area Specific Management Directives from the MSCP

Area specific management directives must include measures to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle.

MSCP Specific Management Efforts

1. Approved trails should keep an appropriate distance from known populations. Populations should be monitored in accordance with the current MSCP Biological Monitoring Plan in order to determine if unauthorized collection is taking place. If it is determined that unauthorized collection is occurring, additional steps should be taken to protect the population such as signage, enforcement, and/or trail closures.
2. Non-native weeds should be kept to a minimum near existing populations.

3. If local populations cannot be adequately protected and unauthorized collection is still occurring regardless of enforcement efforts, the San Diego barrel cactus under threat should be transplanted to a more protected location within the park in appropriate coastal sage scrub habitat. Presence of other native cactus is evidence of suitable habitat. Generally, the cactus must be replanted in the same alignment to the sun as the original site. A technique to ensure this is to mark the plants with paint to show true north prior to transplantation and replanted with the mark in the same alignment. Transplanting this species with a root ball of soil from the original site may also help. After transplantation, the plants should be well watered twice monthly for three months.

Thread-leaved Brodiaea (*Brodiaea filifolia*)

Area Specific Management Directives from the MSCP

This species was not known to occur within the MSCP area upon the adoption of the City of San Diego's Subarea Plan. Therefore, area specific management directives for thread-leaved brodiaea are not provided; the document states that "...participating jurisdictions must specify in their subarea plans additional specific conservation measures for the species if a population is identified in the future." Following this species' discovery within the boundary of Black Mountain Open Space Park in 2010, we propose protecting against detrimental edge effects, weed eradication, and restoration of occupied habitats.

MSCP Specific Management Efforts

1. Approved trails should keep an appropriate distance from known populations in order to ensure that there is no trampling of the species by trail users.
2. A count of plants and/or habitat assessment at each known site should be collected in accordance with the current MSCP Biological Monitoring Plan to provide long-term information and status of the species over time.
3. Non-native weeds should be kept to a minimum near extant populations through enhancement and restoration activities.

Orange-Throated Whiptail (*Cnemidophorus hyperythrus beldingi*)

Area Specific Management Directives from the MSCP

Area specific management directives must address edge effects.

MSCP Specific Management Efforts

The whiptail is still locally common in the Park. However, like most reptiles it is particularly susceptible to urban edge effects. Maintaining habitat quality within coastal sage scrub habitat would likely be the best means of minimizing edge effects. This should include regular removal of introduced trash, limiting unapproved foot trails, and closure of access points that have been determined to contribute to disturbance to native coastal sage scrub through the proposed trail plan (see Figure 2).

San Diego Horned Lizard (*Phrynosoma coronatum blainvillii*)

Area Specific Management Directives from the MSCP

Area specific management directives must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.

MSCP Specific Management Efforts

1. The horned lizard is particularly susceptible to predation by feral and domestic cats, as it often relies on coloration rather than escape as a means of survival. This tactic is often not successful with cats. Predator control should be initiated, as needed and as funding becomes available, to control cats (see item #14, above information about predator control). Education of the public, especially neighboring areas, should emphasize how domestic and feral cats who hunt day and night can create an imbalance by over-hunting compared with the native nocturnal cats.
2. The Argentine ant is currently found within the Park. This ant displaces less aggressive species that are the preferred food item form of the horned lizard. Park personnel should be familiar with the identifying characteristics of Argentine ant colonies and should aggressively pursue eradication efforts if this species is observed utilizing the best available science. Irrigation, trash, and structures should be discouraged since they attract this non-native species. In addition, encroachment onto public lands must be corrected through ranger contact or Code Enforcement, especially where additional water sources are introduced.

California Gnatcatcher (*Polioptila californica californica*)

Area Specific Management Directives from the MSCP

Area-specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat

degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the MHPA may occur between March 1 and August 15.

MSCP Specific Management Efforts

1. All trails and recreational areas should be kept an appropriate distance, based on topography and other factors, from potential breeding habitat of the California gnatcatcher. Vegetation buffers should be considered to exclude hikers from venturing along unapproved trails in the vicinity of historical gnatcatcher use areas. Temporary seasonal trail closures may be appropriate to deter park users from involuntarily harassing birds at a known nest site; temporary trail detours may be appropriate.

2. Surveys in accordance with the U.S. Fish and Wildlife Service protocol should be undertaken to determine presence/absence of the gnatcatcher during the correct season if any coastal sage scrub impacts are proposed for the area. Since these birds are resident (unless dispersing juveniles searching for unoccupied and suitable habitat), they will be present all year. Territories expand and contract during the year based on the prevalence of insect prey and the seasonal need to forage over wider areas to provide nestlings with food.

3. Avoid detrimental edge effects such as noise levels that exceed 60 dBA during the breeding season.

4. Coastal sage scrub should not be cleared during the breeding season (March 1- August 15) unless protocol surveys have determined the area is not occupied by gnatcatchers.

5. Weedy/bulky non-native plant materials should be removed from the periphery of occupied gnatcatcher territories outside the breeding season to reduce the potential and severity of fires.

6. Plant palettes and plans for restoration of high quality California gnatcatcher habitat in appropriate locations should utilize the USFWS regional gnatcatcher surveys to determine preferred habitat qualities.

7. Black Mountain Park was surveyed during regional gnatcatcher monitoring efforts in 2004, 2007 and 2009. Regional monitoring should continue according to the method and schedule required by the most current MSCP biological monitoring protocol. Preserve

level monitoring and/or habitat quality modeling, based on the results of the regional monitoring efforts, should be conducted as necessary to inform management.

Cactus Wren (*Campylorhynchus bunneicapillus*)

Area Specific Management Directives from the MSCP

Area-specific management directives must include restoration of maritime succulent scrub habitat, including propagation of cactus patches, active/adaptive management of cactus wren habitat, monitoring of populations within preserves and specific measures to reduce or eliminate detrimental edge effects. No clearing of occupied habitat may occur from the period February 15 through August 15.

MSCP Specific Management Efforts

1. Black Mountain Open Space is not one of the locations for cactus wren listed in the species evaluation for MSCP coverage; however, it is close to Lake Hodges and San Pasqual Valley, which are identified as key cactus wren areas. In conjunction with non-profit organizations, cactus habitat is being restored within and adjacent to the Park to provide dispersal habitat for wrens from Lake Hodges. These efforts should be continued and utilize the best practices learned from nearby restoration projects, including a focus on all known habitat requirements of cactus wren (e.g. Mexican elderberry) in addition to cactus.
2. Upon maturity (5+ years), cactus restoration areas should be monitored for presence of cactus wren. This is an opportunity to utilize citizen scientists for preserve level monitoring, following the protocol developed by the Nature Reserve of Orange County. If cactus wren colonize the Park, additional 'stepping stone' restoration areas should be created to link to appropriate nearby conserved lands to the south, west and east.
3. Any cactus patches on southern slopes within Black Mountain Park were surveyed by the USFWS as part of a regional monitoring effort in 2010 and 2011. Regional monitoring should continue according to the method and schedule required by the most current MSCP biological monitoring protocol. Preserve level monitoring should be implemented if cactus wrens colonize the Park.
4. If cactus wrens nest in the Park, avoid detrimental edge effects such as noise levels that exceed 60 dBA during the breeding season.
5. Coastal sage scrub should not be cleared during the breeding season (March 1- August 15) unless protocol surveys have determined the area is not occupied by cactus wren.

6. Weedy/bulky non-native plant materials should be culled from the periphery of occupied cactus wren territories outside the breeding season to reduce the potential and severity of fires.

California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*)

Area Specific Management Directives from the MSCP

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

MSCP Specific Management Efforts

Vegetation management (e.g. selective thinning) may be considered by Park management in the event that a disproportionate amount of the coastal sage scrub within the parklands is senescent and does not retain the open canopy associated with rufous-crowned sparrow habitat.

In addition to species management directives, the City of San Diego MSCP Plan, Section 1.5.8, also details Priority 1 MSCP guidelines for the Park. The Priority 1 MSCP guidelines for the Park are as following:

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. Monitoring conducted according to the most current MSCP Biological Monitoring Plan will assess if trail closures are necessary to avoid impacts to sensitive species. If it is determined that trail closures are necessary, MSCP staff will work closely with Park and Recreation staff to determine how best to close the trails permanently or seasonally.
3 Regularly assess overuse of open space areas in and surrounding the park (as determined by the Park & Recreation Department). Trails should be checked for erosion, particularly during and after the rainy season, overgrowth of adjacent vegetation, and condition of trail tread. Repair trails, and restore off-trail use areas and areas affected by erosion as soon as feasible. E. BIOLOGICAL MONITORING

Monitoring of the MSCP covered species as well as other sensitive species is necessary to evaluate the status of these species in the Park. The following discusses monitoring that has occurred or is required within the Park, as well as what is recommended.

MSCP MONITORING

MSCP monitoring shall be conducted per the most current MSCP Biological Monitoring Plan (e.g. The Biological Monitoring Plan for the MSCP (Ogden 1996)). The 1996 plan identifies biological monitoring locations for habitat, wildlife corridors, and covered species. Currently, biological monitoring within the boundaries of the Park is being conducted for California gnatcatcher through a regional monitoring effort overseen by the USFWS, for rare plants following the recommendations of McEachern et al (2007) and McEachern et al (2011), and for wildlife corridors by the San Diego Tracking Team. A description of the monitoring techniques for California gnatcatcher utilized previous to the regional monitoring effort currently used is provided below. Additional monitoring is also suggested within the Park to aid management actions. All monitoring and management conducted is the responsibility of the MSCP Biologist and/or Natural Resource Manager. All survey and monitoring results for the 325-acre Montana Mirador conservation area should be submitted to the U.S. Fish and Wildlife Service on an annual basis as required per BO 1-6-97-F-13.

Focused surveys for California gnatcatcher were conducted by URS biologists under FWS Recovery Permit No. TE-025582-0 in Spring 2001 (Figure 14). Two survey plots were selected at Black Mountain; the western plot is 150 acres in size and the eastern site is 50 acres (Figure 14). One pair of California gnatcatcher and one individual gnatcatcher were detected on the western plot. The gnatcatcher pair was located in the western portion of the site in the California sagebrush dominated area. The gnatcatcher individual was located nearby in black sage dominated scrub. Other sensitive species detected onsite include rufous-crowned sparrow and western whiptail lizard.

No California gnatcatchers were detected at the 50-acre Black Mountain East plot. This site contains dense black sage dominated scrub on the hillsides, and somewhat disturbed flatter areas vegetated by broom baccharis (*Baccharis sarothroides*), California sagebrush, and artichoke thistle. Previous surveys on the three hundred twenty-five acres within Montana Mirador detected eleven pairs and seven individual gnatcatchers (City of San Diego 1993). In 2004, 2007 and 2009, the USFWS conducted regional MSCP monitoring for California gnatcatcher which included Black Mountain Ranch.

Additional California gnatcatcher surveys were conducted at the Park in conjunction with the City's Brush Management Program in 2012 under FWS Recovery Permit No. TE-213728-0. Although surveys were conducted over a limited area (e.g. within 100 feet of structures), thirteen birds (seven single birds and six pairs) were observed along the southwest, south, and southeast edges of the Park. It is expected that further surveys in the interior of the Park will result in

location of additional California gnatcatcher territories.

The City of San Diego conducts annual surveys for Varigated Dudleya (*Dudleya variegata*) within the Park boundary utilizing the most current MSCP protocols.

Figure 14. California Gnatcatcher Monitoring Areas

OTHER SPECIES AND HABITAT MONITORING

Staff conducting management within the Park should be aware of the sensitive species populations within the Park and collect incidental data including, but not limited to:

Disturbance to native vegetation communities.

Disturbance to sensitive plant species populations.

New exotic species invasions observed, including Argentine ants and feral cats.

Sensitive animal species observed during the course of normal patrol duties should also be noted.

These data should be collected using GPS, field maps, forms or other appropriate recording devices. Observations should be noted and filed with the Park and Recreation Natural Resource Manager. It is anticipated that this effort will require only minor data collection and can be conducted as part of the manager's regular patrol duties. Management decisions and priorities should be made based on any updated information collected. When a database is developed for the Park, this information should be entered into the database and to all appropriate regional and/or state-wide databases (e.g. BIOS, CNDDB, multi-taxa monitoring and management database).

Vegetation monitoring should be conducted upon adoption of updated regional MSCP vegetation monitoring protocols. In addition, habitat mapping for the Park should be updated at least every 7 years and after large change events (e.g. fire) using the Vegetation Classification Manual for Western San Diego County (SANDAG 2011) or most current classification system.

As a condition of the Montana Mirador Conservation Area Acquisition Agreement, sensitive species surveys (California gnatcatcher, variegated dudleya) and analysis of population trends where possible given monitoring methods should be performed at least every three years. Ecological trend monitoring, including review of species' habitat status and whether any exotic invasions or type conversions are occurring, should be performed every six years within the conservation area. Such activities are recommended in the remainder of the plan.

The Park was surveyed for Hermes Copper in 2010 by San Diego State University. Although suitable habitat was present, Hermes Copper was not found within the Park.

E. INVASIVE SPECIES CONTROL PROGRAMS

Invasive Plants

A comprehensive weed survey, management and control plan should be developed for the Park. The Plan should be developed in conformance with this Plan and should include species-specific

control methods for invasives known to occur in the Park.

Brown-Headed Cowbird

The brown-headed cowbird (*Molothrus ater*) parasitizes the nests of other bird species, deceiving other species into hatching and raising cowbird chicks at the expense of their own offspring. Due to anthropogenic changes in landscapes, the brown-headed cowbird has colonized extensive new areas and poses a serious threat to several native and sensitive bird species (Meuhter, 2003).

Brown-headed cowbirds have been identified in the Park vicinity, therefore a monitoring and control program should be instituted within the Park. Brown-headed cowbird surveys should be performed periodically, at least every six years. If the species is detected on-site, a qualified avian biologist shall determine whether control measures are warranted. If it is determined that control measures are necessary, a qualified avian biologist shall create and implement a control plan.

Bullfrog

The Bullfrog (*Rana catesbeiana*) is a large, non-native amphibian that has caused major declines in native frog and other species' populations in the western U.S. Bullfrogs displace native amphibian species habitat as well as eat native amphibian tadpoles and adults (Rosen, 2003).

Bullfrogs have been identified in the Park vicinity, therefore a monitoring and control program should be instituted within the Park. Bullfrog surveys should be performed periodically, at least every three years. If the species is detected on-site, a qualified biologist shall determine whether control measures are warranted. If it is determined that control measures are necessary, a qualified biologist shall create and implement a control plan.

Argentine Ant

The Argentine ant (*Linepithema humile*) is native to South America and invades southern California where water is readily available. The Argentine ant out-competes native ant species which provide food for the Horned Lizard, and has been linked with declines in this species.

Argentine ants are found within the Park. Park personnel should be familiar with the identifying characteristics of Argentine ant colonies and should aggressively pursue eradication efforts if this species is observed utilizing the best available science. Any proposed actions including irrigation or structures (e.g. irrigated restoration projects) should be carefully reviewed to determine if they will encourage the spread of Argentine ants. In addition, encroachment onto public lands must be corrected through ranger contact or Code Enforcement, especially where additional water sources are introduced. Removal efforts should follow the best available

research, such as the USGS Publication Brief for Resource Managers: Biotic and Abiotic Controls of Argentine Ant Invasion Success at Local and Landscape Scales (USGS, 2008).

F. SURVEY/MONITORING SCHEDULE

Sensitive species surveys shall be performed using the method and frequency required by the most current MSCP biological protocols.

For all management activities (e.g. habitat restoration, exotics removal, etc.), effectiveness analyses should be performed at appropriate time intervals following the action (e.g. 6 months, 1 year). As part of this process, recommendations for further management actions should be made as part of this process if the management activity is not fully successful.

10. INTERPRETIVE AND RESEARCH GUIDELINES

The natural and cultural resources in the Park provide significant interpretive and research opportunities. An interpretive center and signage throughout the Park would provide educational opportunities for visitors to learn about the natural and cultural resources present as well as history of the area. The following measures are designed to utilize these opportunities in a wise, non-disruptive manner.

A. INTERPRETIVE AND INFORMATIONAL DISPLAYS AND PROGRAMS

The following guidelines shall be followed for all interpretive and informational displays and programs within the Park:

1. The sign program in the Park should be in keeping with the rustic nature of the park and consistent with the City Park and Recreation Department.
2. Only the official logo, as shown on the cover of this plan, will be used, as appropriate, on signs within the Park.
3. Signs should be used to identify designated Park entries and boundaries.
4. Signs/kiosks at Park entries and major access points should carry the Park logo and provide Park rules, regulations, and any other appropriate information.
5. Signs within the Park interior shall be limited to those necessary for trail identification, Park regulations, and protection and/or interpretation of natural and cultural resources and sited in locations that avoid negative impacts to resources.
6. Signs shall be strategically placed for maximum benefit and designed or placed to avoid increasing the number of perches already available in surrounding habitat for foraging raptors in sensitive species nesting areas.
7. Standard informational and educational signs/kiosks shall be developed for the Park and for its riparian, wetland, coastal sage scrub, and chaparral habitats; sensitive species; and sites of historical/cultural significance.
8. Development of interpretive signage in safe areas that will not cause a stress on the cultural resources (such as at the entrance of the park and/or near the arsenic mining site) is recommended. Examples include the official California Historical Marker or other form durable outdoor display. Interpretive structures of smaller scale, such as a kiosk-type shelter, could be considered for interpretive displays and/or programs in areas of the Park. Prevention of vandalism should be taken into account for all interpretive facilities and cultural resources.

9. Interpretive displays shall be changed periodically and focus on educating the public about natural resources and systems within the Park, such as historical resources, water quality, evapo-transpiration, habitat and plant identification, sensitive species, seasonal or migratory species, ecosystems, food chains, animal behaviors, and species adaptation.

10. Before sign placement, final approval from the City of San Diego Park and Recreation Department is required. Posting notices on the bulletin board requires approval of Park rangers.

11. Development of a guided tour program of the historic sites of Black Mountain Open Space Park with trained docents who are both familiar with the heritage of the park and safety precautions that need to take place is recommended. Associated docent educational materials would also be required.

12. An "Ecowatch" program (like Neighborhood Watch) that encourages public participation in educating, maintaining, and protecting should be considered for the Park.

B. NATURE TRAILS

The following guidelines shall be followed for all nature trail planning and development within the Park:

1. An overall nature trail system plan shall be maintained, including locations and points of interpretive interest in accordance with the existing Master Plan. Siting of any new trails in the Park shall be consistent with guidelines established in this Plan and should be in the least sensitive areas (see Chapter 8).

2. Preferably, nature trail loops should be developed for different habitats throughout the Park and wherever possible utilizing existing trails.

3. All nature trails should be self-guided.

4. All nature trail signage shall include signposts with interpretive information and number corresponding to a description in a trail booklet or similar system. Siting for this type of facility should be limited to main trails, access points, and/or nature center.

5. Interpretive information shall include information such as:

   - International signs for trails (hiking, bikes);
   - Identification of key plant and tree species;
   - Physical description of species, growth habit, role in surrounding habitat, and uses by wildlife and man;

- Description of common wildlife behavior, including feeding, foraging, sleeping, and mating behaviors;
- Identification of animal tracks;
- Overall discussion of how the habitats in the area function as an ecosystem, such as food webs;
- Historical and cultural facts of interest;
- Historical information about the mining activities on-site;
- Local Native American history and culture; and/or
- Discussion of causes of resource degradation (public misuse, urban runoff, exotic plant invasion, overuse, trash, etc.).

6. As appropriate, casting of animals, animal tracks, or animal droppings shall be located with appropriate interpretive display along nature trails and/or nature center as an interpretive resource.

C. INTERPRETIVE FACILITIES

An interpretive facility for the Park has not yet been proposed. However, any facility in the Park should be sited per the guidelines provided in this Plan and be in close proximity to nature trails.

There are several possible configurations for an interpretive facility in the Park. Depending on available space and funding, the facility could be a moderately size building or a large open covered structure. A building could house a Park Ranger Office, a theater for slide and video shows, interpretive exhibits, classroom/lab/meeting room, interpretive material storage, and Park maintenance and management material storage. An open structure should be of adequate size to accommodate bench seating for a classroom presentation, interpretive displays, and Park bulletin board. In addition, lighting at the open structure, the provision for video or slide presentation equipment for evening interpretive events would need to meet the requirements of Section 1.4.3, Land Use Adjacency Guidelines, Lighting, of the MSCP Subarea Plan. Either structure option chosen should be designed to blend with the surrounding natural resources and use natural building materials. The area around the chosen structure should be landscaped with native vegetation and incorporate interpretive opportunities. Interpretive facilities would compliment interpretive centers/facilities already built or planned Countywide in resource-based parks and preserves. Interpretive programs should interface with school curriculum and address community interest and involvement.

It is preferable that an interpretive facility be placed in previously disturbed areas to avoid impacts to habitat. A facility should be staffed by Park and Recreation and may be strategically

placed to enhance enforcement of Park Regulations (i.e., in an area where ORV access is known to occur).

Interpretive structures of smaller scale, such as a kiosk-type shelter, also could be considered for interpretive displays and/or programs in areas of the Park that would be some distance from other interpretive facilities. Prevention of vandalism should be taken into account for all interpretive facilities. Exploration of the idea of developing an exhibit and interpretive program of Black Mountain Cultural Resources is additionally recommended by the Cultural Resources Management plan at an offsite location that is more conducive for high volume usage.

D. RESEARCH OPPORTUNITIES

Scientific research within City of San Diego resource-based parks and open space is encouraged in accordance with Section 1.5.14 of the City of San Diego's MSCP Subarea Plan. Permission from the City within which the research would occur is required to ensure resources will not be damaged and/or research projects will not conflict with each other. Research proposals for studies to gather unknown information or update existing information on natural and cultural resources will be reviewed by City of San Diego Natural Resources Planner and Park Rangers. Any additional permits (e.g. state, federal) would be required prior to the issuance of a City permit to conduct research. Archaeological research proposals must also be approved by City of San Diego Park and Recreation Natural Resource Planner, and for research involving Native American sites, must include Native American consultation before research activities begin. Any data published should be shared with the City of San Diego's Park and Recreation Natural Resource Planner for inclusion in the Park's research library. Potential funding would come from outside resources, grants, or City funds. If City funds are used, the City would have final decision on which study to fund.

11. IMPLEMENTATION

A. FEDERAL AND STATE AGENCY PERMITS AND AGREEMENTS

Any development projects within the Park shall be permitted under the appropriate process (e.g. CDFG streambed alteration agreement).

B. DEVELOPMENT RESPONSIBILITIES

This Plan discusses four types of possible projects:1) Erosion and/or sedimentation control; 2) New Park or adjacent development; 3) Park and utility maintenance activities; and 4) Habitat enhancement and restoration. It will be the responsibility of the project applicant to plan, obtain required permits, and develop and implement a Mitigation, Monitoring, and Reporting Plan (if required) in accordance with this Plan and any required permits.

C. CITY OF SAN DIEGO RESPONSIBILITIES

The City of San Diego Park and Recreation Department is responsible for the administration of Black Mountain Open Space and the implementation of this Plan.

Based on the Final MSCP (1998), estimated costs for land management activities within the City of San Diego are approximately $47 per acre annually (1996 dollars). The City of San Diego Park and Recreation budget specifically allocates $160 per acre for management of MSCP open space, or $248,320 per fiscal year for Black Mountain Open Space Park (figures based on analysis of FY2004 budget). Based on the improvement in habitat values that have taken place through enhancement/restoration, enforcement and other management activities, $160 per acre per year is considered sufficient to implement the land management activities outlined in this Plan.

Pursuant to BO 1-6-97-F-13, 325 acres of land in the southern portion of the site, known as Montana Mirador, were used to mitigate biological impacts associated with the CWA ESP. The City shall conduct long-term manage and monitor the site in accordance with this Plan upon approval by the USFWS (BO 1-6-97-F-13).

During development of this Plan, the Montana Mirador acreage was reviewed for specific management and monitoring needs, including MSCP monitoring, supplemental monitoring, restoration, enhancement and recreation management. Based on the most current MSCP monitoring protocols, no rare plant monitoring is required within Montana Mirador. If rare plant monitoring within Montana Mirador is added during future protocol revisions, these would not be treated separately from other MSCP monitoring sites and monitoring would be performed by City biologists and/or consultants. Therefore, no additional funding is expected to be required for these activities. MSCP animal monitoring is performed at a regional level with funding from

SANDAG. Under these protocols, Black Mountain (including Montana Mirador) is included in the regional efforts.

Given the high quality of the habitat conserved as Montana Mirador, management needs within this area are relatively low compared with other MSCP sites managed by the City (i.e. less enhancement, restoration and invasive species control is necessary). A trail survey and recreational threats assessment was completed as part of this Plan. Currently, 0.79 trail miles within Montana Mirador have been closed, and 2.32 additional miles will be closed through implementation of the trail system in the Plan. In addition, a GPS baseline survey and subsequent monitoring of the utility access easements within Montana Mirador (and the rest of Black Mountain) is included as a priority management action in this Plan. These actions will contribute to maintenance of the high quality of the habitat and lower long-term management costs. Management activities including enforcement activities by ranger staff, trail closure and maintenance, habitat restoration, code enforcement support to remove encroachments, and volunteer coordination have been carried on throughout the Park since its expansion in the early 2000s with an annual expenditure of $160/acre or less. Therefore, this annual expenditure is considered sufficient to maintain the Montana Mirador in its present or an improved condition.

The Park and Recreation Department is responsible for conducting maintenance, resource management, enhancement, and educational activities in the Park in compliance with this Plan. The Park and Recreation Department will review public, private, and City project plans along with revegetation and Mitigation, Monitoring and Reporting Plans to ensure the projects meet the requirements and objectives of the Plan. Enhancements projects, Park improvements, educational programs, and a current data base are also the responsibility of the Park and Recreation department. Park rangers issue site use permits; coordinate volunteer efforts; provide educational programs; monitor and work to solve erosion problems; oversees trail, sign, and fence maintenance and development; provide enforcement of City ordinances; and regularly patrol the Park for problems. The Natural Resources section oversees the overall implementation of the Plan; reviews proposed projects and impacts to check for minimization of impacts and compliance with the Plan; reviews Mitigation, Monitoring and Reporting Plans and is part of the compliance sign-off for meeting success criteria; issues research and data collection permits (in coordination with park ranger); manages sensitive species and their habitat; and oversees implementation of habitat enhancement and restoration projects.

General Services and Public Utilities departments conduct maintenance activities for their infrastructure within the Park. These maintenance activities will be in compliance with the measures outlined in this Plan, as well as CEQA and other City regulations. For routine maintenance in the Park, City utilities shall obtain a "right of entry" permit and consult with Park and Recreation staff as necessary. If emergency work is needed, Park and Recreation staff (Park

Ranger and/or Natural Resource Planner) must be notified in advance of repair work, if possible, or within 24 hours of an emergency action of what, why, when, and how repair measures will or were taken. Mitigation Monitoring and Reporting Plans, if necessary, will require a minimum of Park and Recreation approval (Natural Resource Planner) and Development Services approval prior to implementation, as well as sign off to determine when mitigation criteria are met.

Funding for enhancement, management, and preserve maintenance for the Park natural resource system can come from a variety of sources. Items outlined in this management plan are listed below with possible funding sources:

1. Informational, Directive, and Educational Signs/Kiosks. Potential Funding: Coastal Conservancy grant; State Parks and Recreation grant; TransNet grant; possible future state bond initiatives; operating budget; and/or community group fundraising.

2. Interpretive Center Facilities. Includes nature trails, observation platform, structure, fence, and interpretive displays. Potential funding: Coastal Conservancy grant; State Parks and Recreation grant; possible future state bond initiatives; operating budget; and/or community group fundraising.

3. Habitat Enhancement and/or Restoration. Includes restoration of damaged areas, removal of nonnative species, addition of native trees and plants, and stabilization of erosion or potential erosion areas with native vegetation. Potential funding: State Water Resources Control Board grant; National Fish and Wildlife Foundation grant; State Parks and Recreation grant; TransNet grant; Coastal Conservancy grant; mitigation projects; operating budget; and/or community group fundraising.

4. MSCP Specific Species Management Directives. Includes monitoring, site management, enhancement and restoration. Potential funding: CDFG grant; TransNet grant; developer fees; mitigation projects; Capital Improvement Projects; operating budget; and/or grants.

5. Water Quality Improvement. Includes watershed management and runoff treatment. Potential funding: operating budget; and/or State Water Resources Control Board grant.

6. Cultural Resources Recommendations. Submit nomination form for the Mine Site for nomination to the Historic Register. Hazardous Materials Assessment/Abatement of the Mine Site. Potential funding: CalRecycle for the hazardous materials assessment and/or abatement.

D. COMMUNITY GROUP RESPONSIBILITIES

FRIENDS GROUPS

"Friends" groups are non-profit, public interest groups that are part of the City-community interface. These groups make recommendations to the City on management needs, enhancement, and development of City parks and open space. The following are specific ways such a community group could support management and maintenance of the Park:

1. Conduct fundraising activities for Park enhancement and educational and/or interpretive efforts;
2. Provide volunteers (e.g. seniors, interested citizens, students from nearby schools) needed for Park improvements, environmental education, patrols, and some maintenance activities, primarily for trash cleanup and trails;
3. Input public views and comment on City or other proposed projects or plans affecting the Park; and
4. Investigate and advise on specific goals, standards and recommendations for open space use within the Park.

CITIZEN ADVISORY COMMITTEE

If recreation uses are being proposed for the Park that are not addressed in this Plan, they should be submitted to the Black Mountain Park Citizen's Advisory Committee to make recommendations to the Park and Recreation Department whether the uses should be allowed within the Park. Final approval of the proposed use may need to come from the Mayor's Office, especially if it may result in additional liability to the City of San Diego. However, a recommendation from a CAC will help the City of San Diego determine if the proposed use will result in conflicts with other uses or additional impacts to natural or cultural resources.

E. TASKS TO BE IMPLEMENTED

This document outlines a variety of tasks which are grouped below according to priority for implementation. These tasks should be implemented as funding becomes available and the emphasis should be on completing all Priority 1 tasks first.

PRIORITY 1

1. Maintain closures of steep trails that have historically been used by off-road vehicles and/or are unsustainable or unsafe (see Figure 13 for 4.02 miles that were identified during development of the trail plan). Passively and/or actively restore the areas; include species that are locally native to the Park in active restoration efforts (A partial

list of species acceptable for restoration efforts within the Park are given in Appendix B).

2. Close volunteer trails in sensitive areas, unsustainable trails and unsafe trails per the trail plan (see Figure 13 for 7.88 miles that were identified during the development of the trail plan). 2. Maintain and provide where necessary signage and adequate barriers for trail closures.
3. Provide buffers for sensitive areas.
4. Implement high priority restoration projects, as shown in Figure 13.
5. Continue identifying all illegal encroachments and report to City of San Diego Code Enforcement.
6. Update vegetation mapping using the Vegetation Classification Manual for Western San Diego County (SANDAG, 2011).This update was completed in Spring 2012 through funding from SANDAG.
7. Conduct focused surveys for native grasslands.
8. Provide annual reports to the U.S. Fish and Wildlife Service for the 325-acre Montana Mirador Conservation Area as required per BO 1-6-97-F-13 and discussed in Chapter 10.
9. Hazardous materials evaluation of the Mine Site.
10. Submit/complete the Mine Site nomination for the National Register of Historic Places.

PRIORITY 2

1. Continue annual assessment of overuse of trails and repair or restore damage. Trails should be checked for erosion, particularly during and after the rainy season, overgrowth of adjacent vegetation, and condition of trail tread. Close/reroute/protect cultural resource sites that conflict with trails.
2. Implement medium priority restoration projects, as shown in Figure 13.
3. Update as necessary maps provided to Fire Department in 2009 that identify staging areas and access areas as well as sensitive areas to avoid.
4. Update the biological surveys conducted within the Park for this Plan every 5-10 years.
5. Conduct volunteer patrols if a volunteer patrol program is established in the Park.
6. GPS existing utility access roads and easements to establish a baseline, and resurvey at least every five years to insure addition impacts do not occur outside the easement

boundary.

7. Update invasive species mapping and develop noxious weed removal strategy and timeline.

9. Hazardous materials remediation and cleanup at mine site, if necessary/required based on recommendations from hazardous materials evaluation.

PRIORITY 3

1. Develop docent and interpretive sign program for cultural resources.

2. Develop education program on Park resources for surrounding residents and schools, emphasizing protection and preservation of resources.

3. Seek City or grant funding for bat surveys within the Park. Install bat gates if present in mine shafts.

4. Implement low priority restoration projects, as shown in Figure 13.

5. Facilitate partnership with land trust to preserve the rural landscape adjacent to the mine site.

6. Update Park database for plants and animals (every three years).

7. Update Plan (every ten years).

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APPENDIX A

PLANT AND ANIMAL LISTS OF SPECIES KNOWN TO OCCUR WITHIN THE BLACK MOUNTAIN OPEN SPACE PARK

APPENDIX A

PLANTS

The Black Mountain Open Space plant list is based on Dudek and Associates, Inc. Black Mountain Rare Plant Survey (2001), with input from the Black Mountain Citizens Advisory Committee (Kelly, 2004 and 2010).

Class LYCOPODIAE
Order SELAGINELLALES
SELAGINELLACEAE - SPIKE-MOSS FAMILY
Selaginella bigelovii - Bigelow's spike-moss
Selaginella cinerascens - ashy spike-moss

Class FILACAE
Order FILICALES
POLYPODIACEAE – FERN FAMILY
Adiantum jordani – California maidenhair
Dryopteris arguta – coastal wood fern
PTERIDACEAE - BRAKE FAMILY
Cheilanthes newberryi - cotton fern
Pellaea mucronata var. *mucronata* - bird's-foot fern
Pentagramma triangularis ssp. *triangularis* - goldenback fern
Pentagramma triangularis ssp. *viscosa* - silverback fern

Class ANGIOSPERMAE
Subclass MONOCOTYLEDONES
AGAVACEAE – AGAVE FAMILY
Yucca schidigera - Mohave yucca
ALLIACEAE – ONION FAMILY
Allium haematochiton - red-skinned onion
Allium praecox – early onion
Bloomeria crocea var. *crocea* - common goldenstar
Dichelostemma capitatum - blue dicks; wild hyacinth
CYPERACEAE – SEDGE FAMILY
Scirpus robusta – bull tule
IRIDACEAE - IRIS FAMILY
Sisyrinchium bellum - blue-eyed grass
JUNCACEAE - RUSH FAMILY
Juncus acutus - spiny rush
Juncus bufonius - toad rush
LILIACEAE - LILY FAMILY
Brodiaea filifolia – thread-leafed brodiaea
Calochortus weedii var. *weedii* - Weed's mariposa
Fritillaria biflora - chocolate lily
Zigadenus fremontii - Fremont's camas; star lily
ORCHIDACEAE – ORCHID FAMILY
Piperia unalescensis – slenderspire orchid; slenderspire piperia

POACEAE - GRASS FAMILY

Achnatherum coronatum - giant needlegrass
Agrostis gigantean – bent grass
**Aira caryophyllea* - silver European hairgrass
Aristida adscensionis - six weeks three-awn
**Avena barbata* - slender oat
**Avena fatua* - wild oat
Bothriochloa barbinodis - beardgrass
Bromus carinatus
**Bromus diandrus* - ripgut grass
**Bromus hordeaceus* - soft chess
**Bromus madritensis* ssp. *rubens* - foxtail chess
**Cynodon dactylon* - Bermuda grass
**Echinochloa crus-galli* - barnyard grass
Elymus glaucus - western wild rye
**Gastridium ventricosum* - nitgrass
**Hordeum murinum* - glaucous foxtail barley
**Lamarckia aurea* - goldentop
Leymus condensatus - giant ryegrass
**Lolium multiflorum* - English ryegrass
Melica imperfecta - California melic
Muhlenbergia microsperma - littleseed muhly
Nassella lepida - foothill stipa; foothill needlegrass
Nassella pulchra - purple needlegrass
**Pennisetum setaceum* - fountain grass
**Phalaris aquatica* - Harding grass
**Polypogon monspeliensis* - rabbit's-foot grass
Vulpia octoflora - six-weeks fescue

TYPHACEAE - CATTAIL FAMILY

Typha sp. - cattail

ZANNICHELLIACEAE - HORNED-PONDWEED FAMILY

Zannichellia palustris - horned-pondweed

Subclass DICOTYLEDONES

AIZOACEAE - CARPET-WEED FAMILY

**Carpobrotus* sp. - ice plant
**Mesembryanthemum nodiflorum* - small-flowered ice plant
**Tetragonia tetragoniodes* - New Zealand spinach

AMARANTHACEAE - AMARANTH FAMILY

**Amaranthus albus* - tumbleweed

ANACARDIACEAE - SUMAC FAMILY

Malosma laurina - laurel sumac
Rhus integrifolia - lemonadeberry
Toxicodendron diversilobum - poison-oak

APIACEAE - CARROT FAMILY

Apiastrum angustifolium - wild celery
**Apium graveolens* - celery

**Conium maculatum* - poison-hemlock
Daucus pusillus - rattlesnake weed
**Foeniculum vulgare* - sweet fennel
Lomatium dasycarpum ssp. *dasycarpum* - woolly-fruit lomatium
Sanicula arguta - sharp-toothed sanicle

ASCLEPIADACEAE - MILKWEED FAMILY

Asclepias fascicularis - narrow-leaf milkweed

ASTERACEAE - SUNFLOWER FAMILY

Achillea millefolium var. millefolium – common yarrow
Achyrachaena mollis - blow-wives
Acourtia microcephala - sacapellote
Ambrosia psilostachya var. *californica* - western ragweed
Artemisia californica - coastal sagebrush
Artemisia dracunculus - tarragon
Baccharis pilularis - coyote brush
Baccharis salicifolia - mule fat
Baccharis sarothroides - chaparral broom
Brickellia californica - California brickellbush
**Carduus pycnocephalus* - Italian thistle
**Centaurea melitensis* - star thistle
Chaenactis artemisiifolia - white pincushion
Chaenactis glabriuscula var. *glabriuscula* - yellow pincushion
Chaetopappa aurea - golden daisy
Chamomilla suaveolens - pineapple weed
**Chrysanthemum coronarium* - garland chrysanthemum
**Cotula coronopifolia* - brassbuttons
**Cynara cardunculus* - cardoon, artichoke thistle
Encelia californica - California bush sunflower
Encelia farinosa – brittlebush; desert encelia
Erigeron foliosus var. *stenophyllus* - leafy daisy
Eriophyllum confertiflorum var. *confertiflorum* - long-stem golden yarrow
**Filago gallica* - narrow-leaf filago
Gnaphalium bicolor - bicolor cudweed
Gnaphalium californicum - California everlasting
Gnaphalium canescens - white everlasting
Grindelia camporum - gum plant
Gutierrezia sarothrae - broom snake-weed, matchweed
Hazardia squarrosa ssp. *grindelioides* (formerly classified as *Happlopappus squarosus ssp. grindelioides*) - saw-toothed goldenbush
**Hedypnois cretica* - Crete hedypnois
Helianthus gracilentus - slender sunflower
Hemizonia fasciculata - fascicled tarweed
**Hesperevax caulescens* - hogwallow starfish
Heterotheca grandiflora - telegraph weed
Holocarpha virgata - virgate tarweed
**Hypochaeris glabra* - smooth cat's-ear

Isocoma menziesii var *menaiesii* – goldenbush
Isocoma menziesii var vernonioides - goldenbush
**Lactuca serriola* - prickly lettuce
Lasthenia californica - coast goldfields
Lessingia filaginifolia var. linifolia – common sand aster
Microseris douglasii - Douglas's microseris
Osmadenia tenella - rosin-weed
**Picris echioides* - bristly ox-tongue
Porophyllum gracile - odora
Pluchea odorata - marsh-fleabane
Rafinesquia californica - California chicory
**Senecio vulgaris* - common groundsel
**Silybum marianum* - milk thistle
Solidago californica - California goldenrod
**Sonchus asper* - prickly sow-thistle
**Sonchus oleraceus* - common sow-thistle
Stephanomeria exigua - small wreathplant
Stylocline gnaphaloides - everlasting nest-straw
Tragopogon porrofolius – salsify, oyster plant
Viguiera laciniata - San Diego County viguiera
Xanthium strumarium - cocklebur

BORAGINACEAE - BORAGE FAMILY

Amsinckia menziesii - yellow fiddleneck
Cryptantha sp. - cryptantha
Heliotropium curassavicum - wild heliotrope
Pectocarya linearis - slender pectocarya
Plagiobothrys nothofulvus - rusty popcorn flower

BRASSICACEAE - MUSTARD FAMILY

**Brassica nigra* - black mustard
**Lepidium virginicum* - wild peppergrass
**Lobularia maritima* - sweet-alyssum
**Raphanus sativus* - wild radish
Rorippa nasturtium-aquaticum - water cress
**Sisymbrium irio* - London rocket

CACTACEAE - CACTUS FAMILY

Ferocactus viridescens - San Diego barrel cactus
Opuntia littoralis - coastal prickly-pear
Opuntia prolifera - coast cholla

CAMPANULACEAE - BELLFLOWER FAMILY

Triodanis perfoliata var. *biflora*

CAPPARACEAE - CAPER FAMILY

Isomeris arborea - bladderpod

CAPRIFOLIACEAE - HONEYSUCKLE FAMILY

Lonicera subspicata var. *denudata* - southern honeysuckle
Sambucus mexicana - Mexican elderberry

CARYOPHYLLACEAE - PINK FAMILY

**Cerastium flomeratum* - sticky mouse-ear
**Silene gallica* - common catchfly
Silene laciniata - fringed-Indian pink
**Spergularia villosa* - villous sand-spurrey
**Stellaria media* - common chickweed

CHENOPODIACEAE - GOOSEFOOT FAMILY

Atriplex lentiformis- big saltbush, quail brush
**Atriplex semibaccata* - Australian saltbush
**Chenopodium murale* - nettle-leaved goosefoot
**Salsola tragus* - Russian-thistle

CONVOLVULACEAE - MORNING-GLORY FAMILY

Calystegia macrostegia - western bindweed; morning glory
**Convolvulus arvensis* - bindweed
Dichondra occidentalis - western dichondra

CRASSULACEAE - STONECROP FAMILY

Crassula connata - dwarf stonecrop
Dudleya edulis - ladies-fingers
Dudleya lanceolata - lanceleaf dudleya
Dudleya pulverulenta - chalk dudleya
Dudleya variegata – variegated dudleya

CUCURBITACEAE - GOURD FAMILY

Cucurbita foetidissima - coyote-melon, calabazilla
Marah macrocarpus - wild cucumber

CUSCUTACEAE - DODDER FAMILY

Cuscuta californica - California dodder

ERICACEAE - HEATH FAMILY

Xylococcus bicolor - mission manzanita

EUPHORBIACEAE - SPURGE FAMILY

Chamaesyce albomarginata - rattlesnake spurge
Croton californicus - California croton
Eremocarpus setigerus - doveweed
**Ricinus communis* - castor-bean

FABACEAE - PEA FAMILY

Astragalus didymocarpus var. Didymocarpus – white dwarf locoweed
Astragalus trichopodus - Santa Barbara locoweed
Lathyrus laetiflorus - wild sweet pea
**Lotus corniculatus* - bird's-foot lotus
Lotus purshianus - Spanish-clover
Lotus salsuginosus var. Salsuginosus – coastal lotus
Lotus scoparius var. scoparius - deerweed
Lotus strigosus - strigose deerweed
Lupinus bicolor ssp. microphyllusr - lupine
Lupinus excubitus - grape soda lupine
Lupinus hirsutissimus - stinging lupine
Lupinus succulentis - arroyo lupine
Lupinus truncatus - collar lupine

**Medicago polymorpha* - California burclover
**Melilotus alba* - white sweet-clover
**Melilotus indica* - yellow sweet-clover
Pickeringia Montana – chaparral pea
Trifolium wormskjoldii - cow clover
**Vicia benghalensis* - purple vetch

FAGACEAE - BEECH FAMILY

Quercus agrifolia - coast live oak
Quercus berberidifolia - scrub oak
Quercus x chasei – scrub oak hybrid

GENTIANACEAE - GENTIAN FAMILY

Centaurium venustum - canchalagua

GERANIACEAE - GERANIUM FAMILY

**Erodium botrys* - broad-lobed filaree
**Erodium cicutarium* - red-stemmed filaree

GROSSULARIACEAE - CURRANT FAMILY

Ribes indecorum - winter currant
Ribes speciosum - fuschia-flowered gooseberry

HYDROPHYLLACEAE - WATERLEAF FAMILY

Eriodictyon crassifolium - thick-leaved yerba santa
Eucrypta chrysanthemifolia - common eucrypta
Phacelia cicutaria - caterpillar phacelia
Phacelia distans - blue fiddleneck
Pholistoma auritum - fiesta-flower

LAMIACEAE - MINT FAMILY

**Marrubium vulgare* - horehound
Salvia apiana - white sage
Salvia columbariae - chia
Salvia mellifera - black sage
Stachys ajugoides var. *rigida* - rigid hedge-nettle

MALVACEAE - MALLOW FAMILY

Malacothamnus fasciculatus var. *fasciculatus* - mesa bushmallow
**Malva parviflora* - cheeseweed
Sidalcea malvaeflora ssp. sparsifolia - checker mallow; checker bloom

MYOPORACEAE - MYOPORUM FAMILY

**Myoporum laetum* - myoporum

MYRTACEAE - MYRTLE FAMILY

**Eucalyptus* sp. - eucalyptus

NYCTAGINACEAE - FOUR O'CLOCK FAMILY

Mirabilis californica var. *californica* - California wishbone-bush; wishbone plant

ONAGRACEAE - EVENING-PRIMROSE FAMILY

Clarkia purpurea - winecup clarkia
Epilobium canum - California fuchsia

OXALIDACEAE - WOOD-SORREL FAMILY

**Oxalis corniculata* - creeping wood-sorrel

PAEONIACEAE - PEONY FAMILY

Paeonia californica - California peony

PAPAVERACEAE - POPPY FAMILY

Eschscholzia californica - California poppy
Stylomecon heterophylla - wind poppy

PLANTAGINACEAE - PLANTAIN FAMILY

Plantago erecta - dot-seed plantain
**Plantago lanceolata* - English plantain
**Plantago major* - common plantain
**Plantago virginica* - dwarf plantain

PLATANACEAE - SYCAMORE FAMILY

Platanus racemosa - western sycamore

POLEMONIACEAE - PHLOX FAMILY

Navarretia atractyloides - holly-leaf skunkweed
Navarretia hamata - hooked navarretia

POLYGONACEAE - BUCKWHEAT FAMILY

Chorizanthe fimbriata - fringed turkish rugging
Chorizanthe staticoides - turkish rugging
Eriogonum fasciculatum ssp. fasciculatum – flat top buckwheat
Polygonum arenastrum - common knotweed
Pterostegia drymarioides - California threadstem
**Rumex crispus* - curly dock

PORTULACACEAE - PURSLANE FAMILY

Calandrinia ciliata var. *menziesii* - redmaids
Claytonia perfoliata var. *perfoliata* - miner's-lettuce

PRIMULACEAE - PRIMROSE FAMILY

**Anagallis arvensis* - scarlet pimpernel
Dodecatheon clevelandii - shooting star

RANUNCULACEAE - CROWFOOT FAMILY

Clematis sp. - ropevine
Thalictrum polycarpum - many-fruit meadow-rue

RESEDACEAE - MIGNONETTE FAMILY

**Reseda luteola* - Dyer's rocket; reseda

RHAMNACEAE - BUCKTHORN FAMILY

Adolphia californica - California adolphia; California spinebush
Ceanothus tomentosus ssp. *olivaceus* - woolly-leaved ceanothus; mountain lilac
Rhamnus californica - California coffeeberry
Rhamnus crocea - redberry
Rhamnus ilicifolia - holly-leaf redberry; holly leaf coffeeberry

ROSACEAE - ROSE FAMILY

Adenostoma fasciculatum - chamise
Cercocarpus minutiflorus - smooth mountain-mahogany; coastal mountain mahogany
Chamaebatia australis – San Diego mountain misery
Heteromeles arbutifolia - toyon

RUBIACEAE - MADDER FAMILY

Galium angustifolium ssp. angustifolium - narrow-leaved bedstraw

Galium aparine – common bedstraw
Galium nuttallii - Nuttall's bedstraw

RUTACEAE - RUE FAMILY
Cneoridium dumosum - bushrue, coast spicebush

SALICACEAE - WILLOW FAMILY
Populus fremontii - Fremont's cottonwood
Salix lasiolepis var. *lasiolepis* - arroyo willow

SAURURACEAE - LIZARD'S-TAIL FAMILY
Anemopsis californica - yerba mansa

SAXIFRAGACEAE - SAXIFRAGE FAMILY
Jepsonia parryi - mesa saxifrage

SCROPHULARIACEAE - FIGWORT FAMILY
Antirrhinum coulterianum - white snapdragon
Antirrhinum kelloggii - climbing snapdragon
Antirrhinum nuttallianum - Nuttall's snapdragon
Castilleja exserta - common owl's clover
Castilleja affinis - coast paintbrush
Cordylanthus rigidus - dark-tipped bird's-beak
Keckiella cordifolia - heart-leaf penstemon
Linaria canadensis - toadflax
Mimulus aurantiacus - bush monkeyflower
Mimulus brevipes - wide-throat monkeyflower
Scrophularia californica var. *floribunda* - coast figwort; California bee plant

SOLANACEAE - NIGHTSHADE FAMILY
Datura wrightii - western jimsonweed
**Nicotiana glauca* - tree tobacco
Solanum douglasii - white nightshade
Solanum parishii - Parish's nightshade

TAMARICACEAE - TAMARISK FAMILY
**Tamarix* sp. - tamarisk

URTICACEAE - NETTLE FAMILY
Urtica dioica - giant creek nettle
**Urtica urens* - dwarf nettle

VERBENACEAE - VERVAIN FAMILY
Verbena lasiostachys - western verbena

VIOLACEAE - VIOLET FAMILY
Viola pedunculata - johnny jump-up

*signifies introduced (non-native) species

ANIMALS

Class AMPHIBIA (Amphibians)

BUFONIDAE - True Toads

Bufo boreas - western toad

HYLIDAE - Treefrogs and Relatives

Pseudacris cadaverina - California chorus frog

Pseudacris regilla - Pacific chorus frog

RANIDAE - True Frogs

Rana Catesbeiana - bullfrog

Class REPTILIA (Reptiles)

PHYRYNOSOMATIDAE

Phrynosoma coronatum blainvillii - San Diego horned lizard

Sceloporus occidentalis - western fence lizard

Uta stansburiana - side-blotched lizard

TEIDAE - Whiptails and Relatives

Cnemidophorus hyperythrus - orange-throated whiptail

Cnemidophorus tigris - western whiptail

ANGUIDEAE - Alligator Lizards and Relatives

Elgaria multicarinata - southern alligator lizard

COLUBRIDAE - Colubrids

Thamnophis hammondi - two-striped garter snake

VIPERIDAE - Vipers

Crotalus ruber - red diamond rattlesnake

Crotalus viridis - western Pacific rattlesnake

Class AVES (Birds)

PHASIANIDAE - Quails, Pheasants, and Relatives

Callipepla californica - California quail

ARDEIDAE – Herons and Bitterns

Ardea herodias - great blue heron

VULTURIDAE / CARTHARTIDAE

Cathartes aura - turkey vulture

ACCIPITRIDAE - Hawks, Old World Vultures, and Harriers

Accipiter cooperii - Cooper's hawk

Accipiter striatus - sharp-shinned hawk

Buteo jamaicensis - red-tailed hawk

Buteo lineatus - red-shouldered hawk

Circus cyaneus - northern harrier

Elanus leucurus - white-tailed kite

FALCONIDAE - Caracaras and Falcons

Falco sparverius - American kestrel

CHARADRIIDAE - Plovers

Charadrius vociferous - killdeer

COLUMBIDAE - Pigeons and Doves

Columba livia - rock dove

Zenaida macroura - mourning dove

CUCULIDAE - Typical Cuckoos

Geococcyx californianus - greater roadrunner

APODIDAE - Swifts

Aeronautes saxatalis – white throated swift

TROCHILIDAE - Hummingbirds

Calypte anna - Anna's hummingbird

Calypte costae - Costa's hummingbird

Selasphorus rufus – rufous hummingbird

TYRANNIDAE - Tyrant Flycatchers

Myiarchus cinerascens - ash-throated flycatcher

Sayornis nigricans - black phoebe

Sayornis saya – Say's phoebe

Tyrannus vociferans - Cassin's kingbird

Tyrannus verticalis - western kingbird

CORVIDAE - Jays, Magpies, and Crows

Aphelocoma californica – scrub jay

Corvus brachyrhynchos - American crow

Corvus corax - common raven

ALAUDIDAE - Larks

Eremophila alpestris - horned lark

HIRUNDINIDAE - Swallows

Hirundo pyrrhonota - cliff swallow

Hirundo rustica - barn swallow

Stelgidopteryx serripennis - northern rough-winged swallow

AEGITHALIDAE - Bushtit

Psaltriparus minimus - bushtit

TROGLODYTIDAE - Wrens

Thryomanes bewickii - Bewick's wren

MUSCICAPIDAE - Old World Warblers, Gnatcatchers, Kinglets, Thrushes, Bluebirds, and Wrentits

Chamaea fasciata - wrentit

Polioptila caerulea - blue-gray gnatcatcher

Polioptila californica - California gnatcatcher

TURDIDAE - Thrushes

Turdus migratorius – American robin

MIMIDAE - Mockingbirds and Thrashers

Mimus polyglottos - northern mockingbird

Toxostoma redivivum - California thrasher

STURNIDAE - Starlings

Sturnus vulgaris - European starling

PTILOGONATIDAE – Silky flycatchers

Phainopepla nitens - phainopepla

PARULIDAE – Wood warblers
Dendroica coronata – yellow rumped warbler
Geothlypis trichas – common yellowthroat
Wilsonia pusilla – Wilson's warbler
THRAUPIDAE - Tanagers
Piranga ludoviciana – western tanager
EMBERIZIDAE - Warblers, Sparrows, Blackbirds and Relatives
Agelaius phoeniceus - red-winged blackbird
Aimophila ruficeps - rufous-crowned sparrow
Ammodramus savannarun – grasshopper sparrow
Amphispiza belli belli - Bell's sage sparrow
Melospiza melodia - song sparrow
Pipilo crissalis - California towhee
Pipilo maculatus – spotted towhee
Spizella atrogularis – black chinned sparrow
Zonotrichia leucophyrs – white-crowned sparrow
CARDINALIDAE – Cardinals, Grosbeaks, and Buntings
Passerina amoena – lazuli bunting
Pheucticus melanocephalus – black-headed grossbeak
ICTERIDAE - New World Blackbirds and Orioles
Euphagus cyanocephalus – Brewers blackbird
Icterus bullockii – Bullock's oriole
Icterus cucullatus - hooded oriole
Molothrus ater – brown-headed cowbird
Sturnella neglecta – western meadowlark
FRINGILLIDAE - Finches
Carduelis psaltria - lesser goldfinch
Carduelis tristis - American goldfinch
Carpodacus mexicanus - house finch
PASSERIDAE - Weaver Finches
Passer domesticus - house sparrow

Class MAMMALIA (Mammals)
DIDELPHIDAE - Opossums
Didelphis virginiana - Virginia opossum
LEPORIDAE - Rabbits and Hares
Lepus californicus - black-tailed jackrabbit
Sylvilagus audubonii - desert cottontail
SCIURIDAE - Squirrels, Chipmunks, and Marmots
Spermophilus beecheyi - California ground squirrel
GEOMYIDAE - Pocket Gophers
Thomomys bottae - Botta's pocket gopher
MURIDAE - Rats, mice, and voles
Peromyscus sp. - mouse
Neotoma - woodrat
CANIDAE - Foxes, Wolves, and Relatives

Canis latrans - coyote

PROCYONIDAE - Raccoons and Relatives

Procyon lotor - raccoon

FELIDAE – Cats

Felis concolor – mountain lion

Lynx rufus – bobcat

CERVIDAE – Deer

Odocoileus hemionus – mule deer

APPENDIX B

NATIVE PLANTS RECOMMENDED FOR REVEGETATION PROJECTS IN PARK

NATIVE PLANTS RECOMMENDED FOR REVEGETATION/RESTORATION PROJECTS WITHIN BLACK MOUNTAIN OPEN SPACE PARK

The following list is provided for general guidance in choosing plants for remedial or enhancement planting in the various botanic communities found in the Park. Any revegetation/restoration plant palette should be based on the species that are located in the areas immediately surrounding the project area; species may include, but are not limited to, the plants listed here. All plant materials (seeds, cuttings, etc.) used for revegetation/restoration projects should be collected within the Park whenever possible in order to maintain genetic integrity of the local flora.

Any revegetation plan will require approval by City Park and Recreation Department, as appropriate, prior to implementation. The use of endangered, threatened, or sensitive species is encouraged where appropriate.

Diegan Coastal Sage Scrub Components

Adolphia californica – California adolphia
Artemisia californica – California sagebrush
Baccharis sarothroides – broom baccharis
Dudleya variegata – variegated dudleya
Encelia californica – California encelia
Eriogonum fasciculatum var. *foliolosum* – flat-top buckwheat
Eriophyllum confertiflorum – golden yarrow
Ferocactus viridescens – San Diego barrel cactus
Malosma laurina – laurel sumac
Mimulus aurantiacus – San Diego red monkeyflower
Nassella lepida – foothill stipa
Opuntia littoralis – coastal prickly pear
Opuntia prolifera – coastal cholla
Rhamnus crocea -- redberry
Rhus integrifolia – lemonadeberry
Salvia apiana – white sage
Viguiera laciniata – San Diego County sun flower
Yucca schidigera – Spanish bayonet

Native Perennial Grassland

Achnatherum diegoensis – San Diego County needlegrass
Allium praecox – early onion
Astragalus trichopodus – coast locoweed
Bloomeria crocea – common goldenstar
Calochortus kennedy var. kennedy – mariposa lily
Calochortus splendens – splendid mariposa
Fritillaria biflora – chocolate lily
Harpagonella palmeri – Palmer's grapplinghook
Holocarpha virgata – graceful tarplant
Isocoma menziesii var. *decumbens* – decumbent goldenbush
Lupinus bicolor – dove lupine
Nassella pulchra – purple needlegrass
Sidalcea malviflora – checkerbloom
Sisyrinchium bellum – blue-eyed grass-iris
Stachys ajugoides var. rigida – hedge nettle
Viola cornuta – johnny jump ups
Zigadenus fremontii – star lily

Chaparral
Adenostoma fasciculatum – chamise
Ceonothus tomentosis – ceonothus
Cercocarpus minutiflorus – smooth mountain mahogany
Heteromeles arbutifolia – toyon
Malosma laurine – laurel sumac
Xylococcus bicolor – mission manzanita

Riparian
Artemisia douglasiana – California mugwort
Platanus racemosa – western sycamore
Salix lasiolepsis – arroyo willow
Typha sp. - cattail
Clarkia purpurea – purple clarkia
Calystegia macrostegia – western bindweed; morning glory
Plagiobothrys acanthocarpus – adobe popcornflower

APPENDIX C

REPRESENTATIVE PHOTOGRAPHS OF BLACK MOUNTAIN OPEN SPACE PARK

APPENDIX D

RATIONALE FOR TRAIL USE DESIGNATIONS

Trail Use Designation Rationale

In general, the existing trail system at Black Mountain has limitations in regards to equestrian use. The formal trailhead parking areas have not been designed to handle vehicles towing trailers. In some areas, street parking exists but is not an ideal set up for loading and unloading horses. Adjacent to the trailheads there are often pipe gates and fences installed to limit vehicle access etc. These would be hard if not impossible to negotiate with a horse and would need to be torn down and re-designed if equestrian use was going to be encouraged. Steep grades combined with loose rock surfaces ranging from gravel to cobble could be a hazard for some riders. Following rain events there are sections of high clay content soil that become extremely slick and would be prone to 'post holing' from hoof impacts. With the planned trail connections into Black Mountain, all riders would need to negotiate a 'single track' trail that sees significant use from mountain bikes and hikers. Once on this trail, locations to change direction or make way for passing parties are limited and could pose a significant danger to horse, rider, and other users. Our current practice of maintaining this and other trails is not to the standards required for horse use. There are trail facilities such as puncheon bridges that have not been constructed with the weight of a horse and rider in mind.

With the construction of new trail segments in mind, these trails will be traversing steep side slopes and meandering through dense chaparral vegetation with Manzanita, Sumac, Lemonade Berry etc. The construction of new trail sections to equestrian standards would create a larger impact to soils and vegetation than planning for hike/bike only. This would trickle down to mitigation requirements and also result in a larger cost for construction.

In total, the City of San Diego would incur a significant expense to redesign facilities and alter past maintenance practices to promote horse use at Black Mountain. This would benefit a very small percentage of the population. The potential risk to equestrians and horses given the landscape and current conditions would be great. For the city, there is a small benefit potential and a large risk/liability factor in my opinion as well as a fiscal impact to consider.

Existing Trails:

Miner's Ridge Loop-

-A trailhead exists but no pull through parking stalls

-Narrow opening between fence and pipe gate

-Steep approach to the loop covered in gravel

-Narrow single track not brushed to equestrian standards

-Many very sharp 'switchbacks' that coincide with steep grades

-No horse-sized landings to negotiate climbs and turns

-Wooden puncheon bridge along the connector trail was built for human weight

-Turn around spots and passing areas are limited

-Popular trail with much use

Nighthawk Trail from Hilltop C.P.-

-Lower portion of the trail is steep and clay rich

-Upper portion of the trail is steep and solid cobble

-Pipe gate and fence at Trailhead

-Street parking exists but no pull through

Little Black Loop Trail-

-Much of this loop is planned for eventual closure due to steep grades that have been prone to erosion

South Point View Trail-

-Trail is narrow

-Access to this trail is via Nighthawk Trail and portions of Little Black Loop Trail

East Rim Trail-

-Much of this trail planned for closure

-Extreme steep and eroded section on the northern most part of city property

-Access via Nighthawk, Little Black Loop

Glider Point Trail-

-Steep grade combined with many very sharp switchbacks

-Lack of any landings for horses

-Dirt parking area exists; trailer use questionable and would depend on other vehicles using the lot

Planned New Trails:

East Ridge Stacked Loops

-Steep side slope, dense vegetation. Impacts for wider trails would be significantly more than minimal single track

-Access via Nighthawk Trail, or Miner's Ridge Loop

Connector from Lusardi

-Steep side slope, one puncheon bridge, tricky transition from old road bed to the trail, narrow trail, greater impacts

Connector from 4-S

-Greater impacts, road crossing