

SIGNIFICANT  
**NATURAL**  
RESOURCE AREAS

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MANAGEMENT PLAN

FEBRUARY 2006

▪ EXECUTIVE SUMMARY ▪



San Francisco Recreation & Parks

# Significant Natural Resource Areas

## MANAGEMENT PLAN

- Natural Area
- Adjacent RPD Parkland



- 1 Balboa Natural Area**  
An elevated boardwalk allows visitation of one of only a few foredune communities; visitors enjoy views of the Pacific Ocean from a trail connecting to the Golden Gate National Recreation Area.
- 2 Bayview Park**  
Management of diverse populations of sensitive plant species at Bayview Park can add suitable habitat for a variety of resident and migratory birds, including raptors, reptiles, mammals and amphibians.
- 3 Bernal Hill**  
Excellent City views draw high levels of recreational use, but Bernal Hill also offers excellent grassland habitat for sensitive plants such as fragrant fritillary and shooting star.

- 4 Billy Goat Hill**  
If the mixed urban forest-scrub-grassland mosaic of Billy Goat Hill is maintained and enhanced, populations of sensitive plant species could create potential habitat for mission blue butterfly.
- 5 Brooks Park and Lakeview/Ashton Mini Park**  
These small parks offer views and important grassland habitat for native plants and animals; maintenance and enhancement will increase natural resources.
- 6 Buena Vista Park**  
One of the last coast live oak woodlands in the City, Buena Vista Park offers habitat for resident, migratory birds and other wildlife. The plan will help enhance this forest into a multi-aged woodland community, with a native understory and dune scrub.

- 7 Corona Heights**  
Visitors, birds and butterflies flock to this diverse native grassland community, which includes habitat for native plants, sensitive plant species, a wide variety of birds (including raptors), and habitat for butterflies and other insects.
- 8 Dorothy Erskine**  
This tiny jewel offers panoramic City views and diverse native grassland, scrub habitat, and an urban forest; management will enhance the grassland and scrub plant communities.
- 9 Duncan-Castro**  
This park offers native grasslands and important habitat for native plants, sensitive plant species, and a variety of birds and special-status species of butterflies.
- 10 Edgehill Mountain**  
New trails will increase access to this coastal bluff, coastal scrub and oak woodland habitat, which supports a variety of bird species and special-status species of butterflies.
- 11 Fairmount Park**  
Urban forest management at this park will improve the spectacular City views while enhancing habitat for species of birds and special-status species of butterflies.
- 12 Glen Canyon Park/O'Shaughnessy Hollow**  
These outstanding sites offer panoramic views, rock outcrops, extensive grasslands, and excellent habitat for birds and butterflies. Enhancement of the Islais Creek riparian corridor, one of two free-flowing creeks in the City, also will improve the health of San Francisco Bay by decreasing erosion, sediment loading and cleaning the water.
- 13 Golden Gate Heights, Grandview Park, Hawk Hill, Rock Outcrop**  
These sites offer some of the last remaining sand dune communities in the City; unique rock outcrops; important habitat for native plants and sensitive plant and animal species; and panoramic City views.
- 14 Golden Gate Park (Oak Woodland, Lily Pond, Whiskey Hill, and Strawberry Hill)**  
This area supports one of the most extensive native coast live oak woodlands. Management will encourage a more complex native understory with increased wildlife, including sensitive species of California quail and western screech owl.
- 15 India Basin Shoreline Park**  
One of only a few tidal salt marsh wetlands in the City; management and enhancement will protect restoration areas, Bay water quality, and critical habitats.
- 16 Interior Greenbelt**  
With a managed urban forest and restoration of the creek riparian corridor, this site will abound with populations of sensitive plant species and attract a variety of bird species.

- 17 Kite Hill**  
Improved grassland at Kite Hill will support suitable habitat for a variety of bird species, including small ground-dwelling birds as well as foraging habitat for raptors and other wildlife.
- 18 Lake Merced**  
Lake Merced is a major stop-over for birds on the Pacific flyway. Management of the urban forest will produce expanded great blue heron and double-crested cormorant nesting colonies; improved water recreation access; and overall improved habitat.
- 19 McLaren Park**  
Encouragement of dense coastal scrub vegetation will help augment wrenit habitat, increase wildlife forage plants, preserve California quail habitat, and support one of the few populations of San Francisco forktail damselfly within the City.
- 20 Mount Davidson**  
Management activities can restore and maintain the Pacific reedgrass prairie, increasing the wildlife value of this significant resource for native plants, raptors, and butterflies.
- 21 Palou-Phelps**  
Management of the urban forest and maintenance of diverse native grassland habitat will support an increase in numbers and variety of bird species at Palou-Phelps, including raptors.
- 22 Pine Lake**  
Restoration of the degraded shoreline and habitat enhancement can result in reintroduction of the chorus frog as well as improved conditions for waterfowl.
- 23 Sharp Park**  
Enhancement of regionally important wildlife habitat connections at Sharp Park will better support California red-legged frogs, San Francisco garter snakes, mission blue butterflies, and San Francisco forktail damselflies.
- 24 Tank Hill**  
This small park boasts outstanding City views and populations of sensitive plants. Restoration of native scrub and trees will increase habitat diversity and encourage the return of wildlife.
- 25 Twin Peaks**  
This world-famous tourist attraction offers more than stunning City views and a segment of the Bay Ridge Trail. Native grassland and scrub communities provide habitat for butterflies and other insects, sensitive plants, and one of a few populations in the world of the endangered mission blue butterfly; careful management will balance the needs of visitors and wildlife.
- 26 15<sup>th</sup> Avenue Steps**  
The native oaks trees and coastal scrub in this park offer habitat suitable for a variety of resident and migratory bird species. Management would protect and enhance the quality of native vegetation, food sources and shelter within the dunes and native oaks for improved bird habitat.



## OVERVIEW

The City of San Francisco (City) covers approximately 49 square miles and encompasses the northern tip of the San Francisco Peninsula. The climate and geology of the Peninsula set the stage for the evolution of a rich and diverse array of plant and animal life uniquely adapted to this area. Fragments of these unique habitats still exist in the City today, most of them within parks known as Significant Natural Resource Areas (Natural Areas). In the late 1990s, in response to citizen concerns about the loss of natural resources, the San Francisco Recreation and Park Department (SFRPD) developed the Natural Areas Program to protect and manage these Natural Areas for the natural and human values they provide. The **Mission** of the Natural Areas Program is to preserve, restore, and enhance remnant Natural Areas and promote environmental stewardship of these areas. This mission is consistent with the guidelines outlined in Policy 2.13 of the City's General Plan.

**Natural Areas** are remnants of San Francisco's historic landscape and contain the City's natural heritage. These areas support an array of native habitats and species, some found nowhere else in the world, such as the San Francisco garter snake and mission blue butterfly. The opportunity exists in these areas to protect and restore sensitive species and natural habitats for future generations.

In order to succeed in this mission and protect natural resources while providing recreational opportunities, SFRPD developed a plan to guide management actions. **The Significant Natural Resource Areas Management Plan** (Plan) is intended to guide natural resource protection, habitat restoration, trail and access improvements, other capital projects, and maintenance over the next 20 years. The Plan contains detailed information about the biology, geology, and trails in the 31 Natural Areas. These existing natural and recreational resources are the "values" upon which the site-specific issues and recommendations are based. Implementation of the Plan's recommendations will help prevent the local extinction of plants and animals, improve habitat for wildlife, increase safety, and improve access and recreational use in Natural Areas.

### **The Objectives of the Plan are:**

- to inventory the biological resources in Natural Areas to provide background information for planning, restoration, and management activities;
- to develop a Geographic Information System (GIS) database containing baseline information for each of the Natural Areas;
- to identify issues and impacts adversely affecting habitats, enhance biological diversity, and maintain populations of sensitive species;
- to identify and prioritize restoration, management, and monitoring actions;
- to provide guidelines and amenities for passive recreational uses compatible with natural resources; and
- to provide guidelines for educational, research, and stewardship programs.

This **Executive Summary** presents the proposed management approach, strategies, key issues, and the Management Area planning methodology. Site-specific values and vision, Management Area acreage, and trail lengths for each Natural Area are also presented with a Management Areas and Trails Plan figure. More detailed information including natural resource inventories, site-specific and general system-wide issues and recommendations, land-use histories, Integrated Pest Management Plans, and monitoring programs are found in the Plan itself.



## MANAGEMENT PLAN

Natural Areas comprise only about 3 percent of the City and County of San Francisco. However, there are a wide array of plants and animals within these small areas, including federally protected butterflies, frogs, and snakes; locally rare and sensitive wetland habitats; and habitats required by many resident and migratory birds. As the City has grown and its density increased, people have come to rely more on parks and open spaces as places to appreciate nature and gain relief from their urbanized environment. Over the years, Natural Areas have gotten smaller, habitats more fragmented, and greater numbers of people have come to rely on these areas for recreation. In addition, species of plants and animals that are not native to the area have been introduced and threaten the existence of native species and remnant habitats. All of these pressures combined threaten the survival of Natural Areas and the City's natural heritage found within them. The primary management concerns for Natural Areas relate to the protection, restoration, and enhancement of remnant habitats and individual species. However, these management concerns must be balanced with recreational needs of City dwellers.

**Ecological restoration** is the process of repairing damage caused by humans to natural systems. While each restoration project may have different goals (e.g., quail habitat restoration, creek restoration, sensitive plant population restoration, or erosion control and slope restoration) most involve reducing invasive plant species and revegetating with native plants. Planting efforts and plans are informed by project goals and **reference sites**. Reference sites are nearby locations that provide information about the natural conditions of a habitat—for example, the number and type of plants and animals that naturally occur there. These sites provide information about which species to plant, how densely to plant them, and what a site should look like if restoration is successful. Success of a restoration project can also be evaluated against the conditions of a reference site by implementing the monitoring protocols that are part of the overall Plan.

The Plan attempts to incorporate the practice of restoration within a planning framework that balances needs for recreation and greenspace with the needs of wildlife and native plants. **Management Areas** with differing levels of sensitivity have been delineated (see Management Matching Needs Section on page 4 of this summary). In the most sensitive areas and diverse habitats (MA-1 and MA-2), resource conservation is most important. These areas are the focus of the most detailed restoration efforts. This restoration strategy helps prevent further loss of species and maximizes the benefits of restoration work. This strategy also ensures that with limited budgets and resources that the most important and most fragile areas are tended to first. In the least-sensitive habitat areas (MA-3), the Plan focuses on recreation and greenspace preservation. For example, urban forests are preserved and more active recreational opportunities are possible.

Because natural systems are complex and constantly changing, management strategies must adapt to succeed. **Adaptive Management**, the management strategy for the Natural Areas, takes a flexible, learning-based approach in which monitoring evaluates pre-project conditions and any change resulting from a management action. This information is used to evaluate project successes and failures and to refine future management approaches.

Environmental education programs coordinated through the SFRPD's Youth Stewardship Program currently exist in Glen Canyon Park, Lake Merced, McLaren Park, Bayview Park, Corona Heights, Mount Davidson, Pine Lake, and Golden Gate Park. A year-long program teaches students about geography, plants, water, soils, and animals, and includes some hands-on restoration work in the Natural Areas. Approximately 563 youth received environmental education through SFRPD programs in 2005. The California Academy of Sciences, San Francisco State University, Kids in Parks, Tree Frog Treks, and other local education organizations also use the Natural Areas for environmental education. In addition to the parks listed above, the following Natural Areas provide additional opportunities for environmental programming: Indian Basin Shoreline Park, Twin Peaks, Sharp Park and Buena Vista Park.



## BALANCE FOR THE NATURAL/URBAN ENVIRONMENT

Our Natural Areas exist in a highly urbanized environment. Because of this, they provide an important recreational resource to San Franciscans who use the miles of trails and acres of open space to relieve tensions generated by living in a major city. This Plan attempts to balance the needs of the people with the needs of the remaining habitat. In spite of the pressures on them, a remarkable diversity of birds, reptiles and amphibians, endangered butterflies, and plants remain in the Natural Areas. It is this environment that we must learn to understand, maintain and enhance, while balancing the sometimes conflicting needs of people and natural places. With planning and care, recreational use and natural resource conservation can be balanced, allowing San Franciscans to continue enjoying the unique experiences that our Natural Areas afford.

**TRAILS** provide essential access to parks and Natural Areas. The Plan inventoried 40 miles of existing trails. Trails to remain were categorized into three groups: improved, unimproved, and proposed new trails. Trail improvements will focus on improving main entry points into, and accessibility to main points of interest within, Natural Areas. The Plan largely focuses on improving existing trails rather than developing new ones. The Plan also calls for closure or relocation of social trails<sup>1</sup> that appear particularly redundant or destructive. This action will protect and enhance wildlife habitat, improve safety, and deter erosion.

TRAIL TYPE	DISTANCE	PERCENT OF TOTAL
Existing trails to retain		
• Improved/maintained	17.5 miles	43%
• Unimproved	12.5 miles	31%
Social trails <sup>1</sup> to close/reroute	10.3 miles	26%
<b>Total Trails within Natural Areas</b>	<b>40.3 miles</b>	
New trails to be developed/maintained	1.1 miles	+3%

<sup>1</sup> Social Trails are: undesignated; often shortcuts; informal entrances from private property; and/or routes for unsanctioned park activities.

**DOG WALKING/PLAY** is a very popular recreational activity in Natural Areas. The level of dog-related impacts can vary greatly. Several of the existing Dog Play Areas (DPAs) are in or adjacent to Natural Areas. Approximately 81% of the DPAs on SFRPD land are within or adjacent to Natural Areas. If measures in the Plan are implemented, 85% (or 81 acres) of the existing off-leash areas would remain.

DOG ACCESS	RECOMMENDATIONS
No Change to Existing DPA	Maintain existing DPAs at Corona Heights, Golden Gate Park Southeast, Pine Lake, McLaren Park Geneva and Crocker Amazon.
No Dog Access	Gray Fox Creek at McLaren Park (0.6 acres), the water at Pine Lake (1.7 acres), and habitat for federally listed species at Sharp Park (33.3 acres).
Allow Dog Access with Monitoring	Monitor dog use and impacts to oak woodlands at Buena Vista and Golden Gate Park NE and to small wildflower meadows in McLaren Park Shelley Loop. These sites could remain open indefinitely if resources are protected. If impacts are detected, additional protective measures, including converting areas to on-leash, will be implemented. The DPA at Lake Merced is recommended for relocation. In the interim this DPA should remain open and be monitored for impacts.
Change to On-leash	Convert approximately 14 acres of existing DPAs to on-leash in sensitive plant and wildlife habitats at McLaren Park Shelly Loop (8.3 acres) and Bernal Hill (6 acres).
Future DPAs	MA-1 and MA-2 areas should not be considered for DPAs. These should be on-leash and on-trail areas. MA-3, the least sensitive areas, are considered suitable for development of new off-leash DPAs.

Trees are an important resource for the people of San Francisco. Native trees, such as coast live oak and California wax myrtle, are relatively rare within the Natural Areas and are a priority for conservation. Most of the trees within the Natural Areas are non-native and often invasive. These urban forests are comprised mostly of blue gum eucalyptus with a smaller number of Monterey pine and Monterey cypress. Planted in San Francisco early in the 19th century, these trees have matured into significant forests. They provide habitat for a range of wildlife and dynamic open space resources to people. While urban forests have many benefits, these trees are invasive and cause problems when they spread into neighboring grassland and scrub communities. In some areas they are too dense and forest health is deteriorating. The Plan attempts to balance the need to preserve the trees that people enjoy, while also protecting and enhancing natural resources. To do this, tree removal is focused in areas where native communities are threatened. The Natural Areas Program plants approximately 200 native trees, including oak, alder, wax myrtle, and bay trees, per year in the Natural Areas.

URBAN FOREST (INVASIVE TREE) MANAGEMENT IN SAN FRANCISCO:			
Total estimated number of invasive trees: <sup>2</sup>	64,000		
Invasive trees proposed for removal	3,400	5%	To promote forest health and diverse plant communities.
Invasive trees proposed to remain	60,600	95%	Protected and managed for the values of the urban forest and to ensure long-term forest health.

<sup>2</sup> Sharp Park is within the city limits of Pacifica. It is estimated to contain an additional 54,000 trees. The Plan proposes to remove 28 percent or approximately 15,000 of those trees.



## MANAGEMENT MATCHING NEEDS

**Management Areas** (MA-1, MA-2, and MA-3) have been delineated within each Natural Area based on differing levels of sensitivity, species presence, and habitat complexity. Three levels of management intensity have been defined. Each corresponds with a level of sensitivity. Restoration activities in MA-1 areas are prioritized over MA-2 and MA-3 areas respectively. MA-1 areas are highly sensitive to human-generated disturbance, require very specific management actions, and can be subject to restrictions on recreational use to protect sensitive habitats and species. The MA-2 areas are less sensitive than MA-1 areas. These areas, which also contain important habitats, act as buffers for MA-1 areas and have relatively fewer use restrictions. In general, all passive recreational uses will be allowed (on-trail and on-leash) in MA-2 areas. MA-3 areas are the least sensitive and the least likely to be the focus of restoration work.

### MA-1 areas are where resources are at the greatest risk and are priority areas for conservation and management.

#### MA-1 AREAS ARE THOSE THAT SUPPORT/CONTAIN:

- State or federally listed species or species of local concern
- Habitat for a significant number of sensitive plants or animals
- Relatively high portions of native plants or plant diversity
- Unique remnant native plant areas (e.g., native grasslands, wetlands)
- Habitats or species most sensitive to human use
- Vegetation assemblages of limited distribution
- Areas with high erosion risk

#### MANAGEMENT ACTIONS WITHIN AREAS DESIGNATED MA-1:

- Include the most focused restoration work, even to the level of micro-management of individual plants
- Encourage reintroductions of sensitive species
- Encourage tree removal where required for habitat preservation
- Will implement erosion control measures (including closure of social trails) to protect resources
- Prohibit planting of non-native species
- Disallow new DPA development

### MA-2 areas, although less sensitive, still offer significant wildlife and conservation benefits.

#### MA-2 AREAS ARE THOSE THAT SUPPORT:

- Important habitats (e.g., coastal scrub, wetlands, native grasslands)
- Remnant native plant habitats composed of common vegetation (e.g., coyote brush scrub, blackberry scrub)
- Habitats or species moderately susceptible to human impact
- Habitat for local native wildlife species
- Primarily native vegetation, but also invasive vegetation

#### MANAGEMENT ACTIONS WITHIN AREAS DESIGNATED MA-2:

- Focus on habitats (not individual plants)
- Allow for the reintroduction of sensitive plants
- Allow tree removal in compliance with forestry statements
- Will implement erosion control measures (including closure of social trails) to protect resources
- Prohibit installation of non-native species

### MA-3 areas offer the greatest recreational opportunity.

#### MA-3 AREAS ARE THOSE THAT SUPPORT/CONTAIN:

- Some native plants and habitat for wildlife species, but do not support sensitive plants or animals
- Primarily non-native vegetation which serves to buffer MA-2 areas from surrounding development, recreation, and other land uses

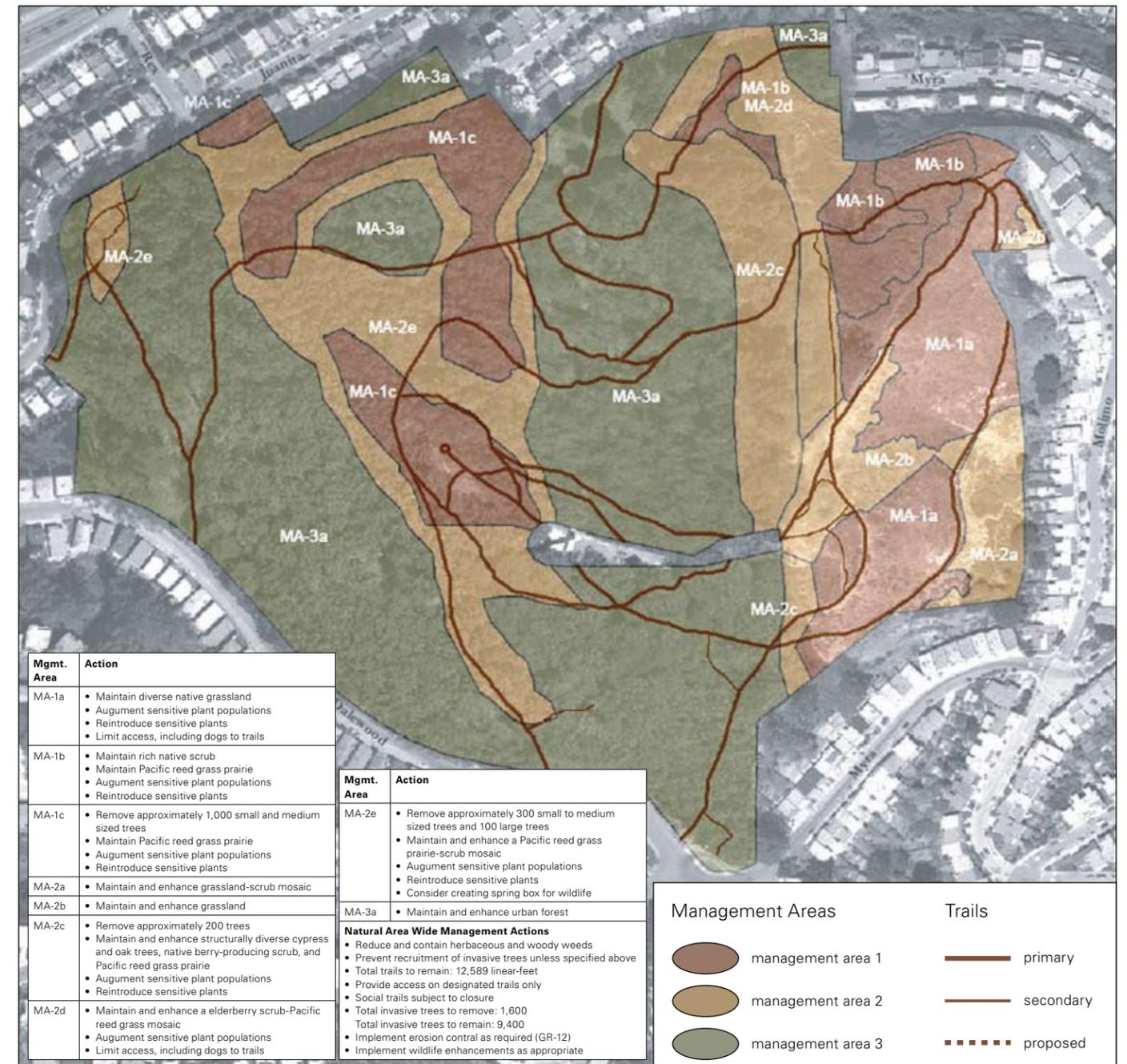
#### MANAGEMENT ACTIONS WITHIN AREAS DESIGNATED MA-3:

- Will manage urban forests in accordance with the forestry plan including tree and ivy removal, thinning of trees to allow for forest understory regeneration, and forest health enhancement
- Prohibit reintroduction of sensitive species
- Include few recreational use restrictions (standard park rules)
- Will implement erosion control measures (including closure of social trails) to protect resources



## SAMPLE MANAGEMENT PLAN

Below is the Management Areas and Trails Plan for Mount Davidson. This sample is included to provide a more detailed view and map legend for use in reviewing the site-specific Management Plans and Existing Socioeconomic Values and Ecosystem Functions and Site Improvements sections that follow. These can also be found in the full Plan. Management actions are uniquely coded for each site; codes from one site do not translate to another site.



**SITE VALUES AND RESOURCES**

NATURAL AREA SITE (LOCATION)	HABITAT TYPE						RECREATIONAL ACTIVITIES								
	Oak Woodland	Dune	Coastal Scrub	Creek/Riparian	Wetland	Urban Forest	Grassland	Bird and Wildlife Observation	Views	Trails and Hiking	Wildflower Observation	Educational Signage	Dog Play Off Leash	Volunteer Opportunities	Environmental Education Program
Balboa Natural Area (Balboa St. & The Great Highway)		•					•	•		•					
Bayview Park (Key Rd.)			•			•	•	•	•	•					•
Bernal Hill (Bernal Heights Blvd.)							•	•	•	•			•		
Billy Goat Hill (Castro & 30 <sup>th</sup> St.)							•		•	•					
Brooks Park (Shields & Arch St.)							•		•	•				•	
Buena Vista Park (Buena Vista Ave. & Haight St.)	•						•	•					•	•	
Corona Heights (Roosevelt & Museum Way)							•		•	•			•	•	•
Dorothy Erskine Park (Martha and Stillings Streets)						•	•	•	•						
Duncan-Castro (Duncan & Castro Streets)							•		•	•					
Edgehill Mountain (Ulloa St. & Kensington Way)			•			•	•		•					•	
Fairmount Park (Miguel and Bemis Streets)						•		•							
Glen Canyon Park (O'Shaughnessy Blvd. & Bosworth St.)			•	•		•	•	•	•	•				•	•
Golden Gate Heights Park (12 <sup>th</sup> Ave. & Rockridge Dr.)		•						•		•					
Grandview Park & Extension (Moraga St. & 14 <sup>th</sup> Ave.)		•						•		•	•				
Hawk Hill (Rivera St. & 14 <sup>th</sup> Ave.)		•								•					
India Basin Shoreline Park (Hunters Point Blvd.)					•		•	•	•						
Interior Greenbelt (Edgewood or Clarendon Streets)						•	•								
Kite Hill (Yukon & 19 <sup>th</sup> St.)						•		•							
Lake Merced (Lake Merced Blvd.)		•			•	•	•		•	•	•		•	•	•
Lakeview/Ashton Mini Park (Lakeview & Orizaba St.)								•						•	
McLaren Park (Mansell St. & Visitacion Ave.)				•	•	•	•	•	•	•			•	•	•
Mount Davidson (Myra Way)						•	•	•	•	•				•	•
Oak Woodlands: Golden Gate Park (Fulton & Stanyan St.)	•						•		•				•	•	•
O'Shaughnessy Hollow (Marietta Dr.)			•				•		•	•					
Palou-Phelps (Palou & Phelps Ave.)							•		•	•					
Pine Lake (Crestlake Dr. & Wawona St.)				•	•	•	•		•				•	•	•
Rock Outcrop (Ortega St. & 14 <sup>th</sup> Ave.)		•							•		•				
Sharp Park (Sharp Park Road & Highway 101, Pacifica)			•	•	•	•	•	•	•	•					
Tank Hill (Clarendon Ave.)							•		•	•				•	
Twin Peaks (Twin Peaks Blvd.)			•				•	•	•	•					
15 <sup>th</sup> Avenue Steps (Kirkham St. & 15 <sup>th</sup> Ave.)	•						•								

**SITE IMPROVEMENTS**

Implementation of management recommendations for each Natural Area will result in the improvements indicated in the following table.

NATURAL AREA SITE	SITE IMPROVEMENTS							
	Improved Access	Entryway Beautification or Demonstration Gardens	Sensitive Plants	Educational Signage	Improved Urban Forest	Improved Bird Habitat	Reduced Erosion	Improved Wildlife Habitat
Balboa Natural Area			•			•		•
Bayview Park		•	•	•	•	•	•	•
Bernal Hill	•		•		•	•	•	•
Billy Goat Hill	•	•	•			•		•
Brooks Park and Lakeview/Ashton Mini Park	•	•				•		•
Buena Vista Park	•				•	•	•	•
Corona Heights	•	•	•		•	•	•	•
Dorothy Erskine Park	•							
Duncan-Castro	•	•	•			•		•
Edgehill Mountain	•			•		•		•
Fairmount Park	•	•	•				•	•
Glen Canyon Park and O'Shaughnessy Hollow	•		•	•	•	•	•	
Golden Gate Heights Park	•	•	•				•	•
Golden Gate Park (Oak Woodlands, Lily Pond, Whiskey Hill and Strawberry Hill)	•	•			•	•	•	•
Grandview Park	•	•	•				•	•
Hawk Hill	•	•	•				•	•
India Basin Shoreline Park		•				•	•	•
Interior Greenbelt	•		•	•		•		•
Kite Hill	•	•				•		•
Lake Merced	•	•	•		•	•		•
McLaren Park	•	•	•	•	•	•	•	•
Mount Davidson	•	•	•	•	•	•	•	•
Palou-Phelps	•							•
Pine Lake	•	•		•		•	•	•
Rock Outcrop	•	•	•					
Sharp Park	•		•					
Tank Hill	•	•	•					•
Twin Peaks	•		•				•	•
15 <sup>th</sup> Avenue Steps						•		

## BALBOA NATURAL AREA

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

One of only a few diverse foredune communities in San Francisco; recreational trail use on an elevated boardwalk; trail connections to neighboring Golden Gate National Recreation Area; views of the Pacific Ocean; and suitable habitat for dune-dependent animals.

### SITE IMPROVEMENTS

Implementation of management recommendations at the Balboa Natural Area would not change significantly the overall look of the park and would result in preservation and enhancement of the foredune plant community.



Park Acreage	1.8
Natural Area Acreage	1.8
Management Area (acres)	
MA-1	1.1
MA-2	0.7
MA-3	0
<b>Total MA</b>	<b>1.8</b>
Invasive Trees	
To Remove	0
To Remain	0
Trails (feet)	
Existing	637
Remain / Improve	547
Close / Relocate	90
New	0

## BERNAL HILL

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Panoramic City views; high levels of recreational use; good raptor foraging habitat; extensive grasslands providing habitat for butterflies and other insects; populations of sensitive plant species and suitable habitat for a variety of bird species and special-status species of butterflies.

### SITE IMPROVEMENTS

Implementation of management recommendations at Bernal Hill would not change significantly the overall look of the park and would result in:

- preservation and enhancement of native grasslands;
- partially modified off-leash Dog Play Area; and
- continued off-leash dog use of Bernal Hill and protection of sensitive habitat areas by reconfiguring and reducing the existing Dog Play Area by 29 percent.



Park Acreage	24.3
Natural Area Acreage	24.3
Management Area (acres)	
MA-1	7.6
MA-2	5.8
MA-3	10.7
<b>Total MA</b>	<b>24.1</b>
Invasive Trees	
To Remove	0
To Remain	100
Trails (feet)	
Existing	12,239
Remain / Improve	7,695
Close / Relocate	4,544
New	464
Dog Play Areas (acres)	
Existing	21.0
Remain	15.0
Monitor	No

## BAYVIEW PARK

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Recreational trails; historic Works Project Administration features; panoramic views of the City, San Francisco Bay, and San Bruno Mountain; diverse populations of sensitive plant species; suitable habitat for a variety of resident and migratory bird species, including raptors, reptiles, mammals, and amphibians; extensive grasslands providing habitat for butterflies and other insects; and one of only a few populations in the world of the endangered mission blue butterfly.

### SITE IMPROVEMENTS

Implementation of management recommendations at Bayview Park would not change significantly the overall look of the park and would result in:

- increased coast live oak forest;
- thinning of sapling and mature eucalyptus and replacement with higher wildlife value native vegetation;
- creation of a seasonal wetland; and
- establishment of a stable boundary between eucalyptus and grassland habitat.



Park Acreage	43.9
Natural Area Acreage	43.9
Management Area (acres)	
MA-1	8.2
MA-2	15.8
MA-3	19.7
<b>Total MA</b>	<b>43.7</b>
Invasive Trees	
To Remove	511
To Remain	5,489
Trails (feet)	
Existing	8,496
Remain / Improve	7,057
Close / Relocate	1,439
New	1,020

## BILLY GOAT HILL

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTION

Recreational trail use; important habitat for native plants and populations of sensitive plant species; native grassland habitat; City views; and suitable habitat for a variety of bird species and special-status species of butterflies.

### SITE IMPROVEMENTS

Implementation of management recommendations at Billy Goat Hill would not change significantly the overall look of the park and would result in enhancement of native grasslands.



Park Acreage	3.5
Natural Area Acreage	3.5
Management Area (acres)	
MA-1	0.6
MA-2	1.1
MA-3	1.6
<b>Total MA</b>	<b>3.3</b>
Invasive Trees	
To Remove	0
To Remain	20
Trails (feet)	
Existing	2,600
Remain / Improve	1,855
Close / Relocate	745
New	0

## BROOKS PARK AND LAKEVIEW / ASHTON MINI PARK

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

An extensive trail network; important habitat for native plant and animal species; and panoramic City views.

### SITE IMPROVEMENTS

Implementation of management recommendations at Brooks Park and Lakeview/Ashton Mini Park would not change significantly the overall look of the parks and would result in maintenance and enhancement of native grassland and dune scrub habitat.

#### BROOKS PARK



<b>Park Acreage</b>	<b>3.5</b>
<b>Natural Area Acreage</b>	<b>2.0</b>
<b>Management Area (acres)</b>	
MA-1	0.8
MA-2	0.9
MA-3	0.3
<b>Total MA</b>	<b>2.0</b>
<b>Invasive Trees</b>	
To Remove	3
To Remain	17
<b>Trails (feet)</b>	
Existing	1,340
Remain / Improve	884
Close / Relocate	456
New	0

#### LAKEVIEW / ASHTON MINI PARK



<b>Park Acreage</b>	<b>0.5</b>
<b>Natural Area Acreage</b>	<b>0.5</b>
<b>Management Area (acres)</b>	
MA-1	0.1
MA-2	0.2
MA-3	0.2
<b>Total MA</b>	<b>0.5</b>
<b>Invasive Trees</b>	
To Remove	0
To Remain	0
<b>Trails (feet)</b>	
Existing	651
Remain / Improve	651
Close / Relocate	0
New	0

## BUENA VISTA PARK

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

One of the last remaining coast live oak woodlands in the City; high levels of recreational trail use; and habitat for a wide variety of resident and migratory bird species.

### SITE IMPROVEMENTS

Implementation of management recommendations at Buena Vista Park would not change significantly the overall look of the park and would result in:

- multi-aged oak forest;
- enhanced health of oak woodlands;
- installation of a permanent water source for wildlife;
- enhanced public safety and enjoyment by increasing and establishing view corridors; and
- no change to the existing Dog Play Area, unless patterns and impacts change.



<b>Park Acreage</b>	<b>36.1</b>
<b>Natural Area Acreage</b>	<b>6.1</b>
<b>Management Area (acres)</b>	
MA-1	0
MA-2	6.1
MA-3	0
<b>Total MA</b>	<b>6.1</b>
<b>Invasive Trees</b>	
To Remove	10
To Remain	90
<b>Trails (feet)</b>	
Existing	3,741
Remain / Improve	3,741
Close / Relocate	0
New	0
<b>Dog Play Areas (acres)</b>	
Existing	1.0
Remain	1.0
Monitor	Yes

## CORONA HEIGHTS

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

High levels of recreational trail use; diverse native grassland community; habitat for native plants and populations of sensitive plant species; habitat for a wide variety of bird species, including foraging habitat for raptors; extensive grasslands providing habitat for butterflies and other insects; and panoramic City views.

### SITE IMPROVEMENTS

Implementation of management recommendations at Corona Heights would not change significantly the overall look of the park and would result in:

- an increase of native grassland species within existing grassland habitats; and
- no change in the existing Dog Play Area.



<b>Park Acreage</b>	<b>12.6</b>
<b>Natural Area Acreage</b>	<b>9.6</b>
<b>Management Area (acres)</b>	
MA-1	2.9
MA-2	2.5
MA-3	4.2
<b>Total MA</b>	<b>9.6</b>
<b>Invasive Trees</b>	
To Remove	15
To Remain	185
<b>Trails (feet)</b>	
Existing	6,701
Remain / Improve	4,856
Close / Relocate	1,845
New	0
<b>Dog Play Areas (acres)</b>	
Existing	0.4
Remain	0.4
Monitor	No

## DOROTHY ERSKINE PARK

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Panoramic city views; recreational use; diverse native grassland and scrub habitats; and urban forest.

### SITE IMPROVEMENTS

Implementation of management recommendations at Dorothy Erskine Park would not change significantly the overall look of the park and would result in enhanced grassland and scrub plant communities.



Park Acreage	1.5
Natural Area Acreage	1.5
Management Area (acres)	
MA-1	0.2
MA-2	0.3
MA-3	1.0
<b>Total MA</b>	<b>1.5</b>
Invasive Trees	
To Remove	14
To Remain	86
Trails (feet)	
Existing	771
Remain / Improve	771
Close / Relocate	0
New	0

## EDGEHILL MOUNTAIN

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

City views; recreational trail use; coastal scrub plant habitat; suitable habitat for a variety of bird species; and urban forest.

### SITE IMPROVEMENTS

Implementation of management recommendations at Edgell Mountain would not change significantly the overall look of the park and would result in enhanced coastal scrub and prairie habitat.



Park Acreage	2.3
Natural Area Acreage	2.3
Management Area (acres)	
MA-1	0
MA-2	0.9
MA-3	1.4
<b>Total MA</b>	<b>2.3</b>
Invasive Trees	
To Remove	0
To Remain	300
Trails (feet)	
Existing	747
Remain / Improve	747
Close / Relocate	0
New	438

## DUNCAN-CASTRO

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Some recreational trail use; native grassland habitat; important habitat for native plants and populations of sensitive plant species; and suitable habitat for a variety of bird species and special-status species of butterflies.

### SITE IMPROVEMENTS

Implementation of management recommendations at Duncan-Castro would not change significantly the overall look of the park and would result in:

- preservation and enhancement of native grassland habitat; and
- removal, relocation, or burial of two pipelines that pose a safety hazard.



Park Acreage	0.5
Natural Area Acreage	0.5
Management Area (acres)	
MA-1	0.3
MA-2	0.1
MA-3	0.1
<b>Total MA</b>	<b>0.5</b>
Invasive Trees	
To Remove	0
To Remain	0
Trails (feet)	
Existing	333
Remain / Improve	333
Close / Relocate	0
New	0

## FAIRMOUNT PARK

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

City views; suitable habitat for a variety of bird species; and urban forest.

### SITE IMPROVEMENTS

Implementation of management recommendations at Fairmount Park would not change significantly the overall look of the park and would result in enhanced viewsheds.



Park Acreage	0.7
Natural Area Acreage	0.7
Management Area (acres)	
MA-1	0
MA-2	0
MA-3	0.7
<b>Total MA</b>	<b>0.7</b>
Invasive Trees	
To Remove	0
To Remain	100
Trails (feet)	
Existing	187
Remain / Improve	187
Close / Relocate	0
New	0

## GLEN CANYON PARK AND O'SHAUGHNESSY HOLLOW

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

High levels of recreational trail use; panoramic views; interpretive signs; one of two last free-flowing creeks in the City; some of the City's largest and most impressive and accessible rock outcrops; excellent forage and nesting habitat for a variety of resident and migratory bird species; extensive grasslands providing habitat for butterflies and other insects; dense willow thickets offering protection for nesting birds; red-tailed hawk and great-horned owl nesting and foraging sites; suitable habitat for special-status species of butterflies; important habitat for native plants; populations of sensitive plant and animal species; and extensive urban forest.

### SITE IMPROVEMENTS

Implementation of management recommendations at Glen Canyon Park and O'Shaughnessy Hollow would not change significantly the overall look of the park and would result in:

- protection and enhancement of native grassland and scrub communities;
- enhanced creek riparian corridor with greater plant and structural diversity;
- preservation and enhancement of existing pools in the creek;
- improved health of San Francisco Bay by decreasing sediment loading and erosion into Islais Creek; and
- improved soil stabilization and erosion control in creek and watershed.



Park Acreage	72.6
Natural Area Acreage	63.8
Management Area (acres)	
MA-1	8.1
MA-2	33.0
MA-3	22.4
<b>Total MA</b>	<b>63.5</b>
Invasive Trees	
To Remove	120
To Remain	5,880
Trails (feet)	
Existing	23,242
Remain / Improve	19,590
Close / Relocate	3,653
New	0

## GOLDEN GATE HEIGHTS • GRANDVIEW PARK • HAWK HILL • ROCK OUTCROP

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Some of the last remaining sand dune communities in the City; unique rock outcrop habitat; some recreational trail opportunities; interpretive signs (Grandview); important habitat for native plants and populations of sensitive plant and animal species; and panoramic City views.

### SITE IMPROVEMENTS

Implementation of management recommendations at Golden Gate Heights Park (GGH), Grandview Park (GV), Hawk Hill (HH), and Rock Outcrop (RO) would not change significantly the overall look of these Natural Areas and would result in increased health and diversity of native dune community.

	GGH	GV	HH	RO
Park Acreage	6.0	4.0	4.5	1.6
Natural Area Acreage	0.8	4.0	4.5	1.6
Management Area (acres)				
MA-1	0.2	0.9	1.4	0.8
MA-2	0.5	2.4	3.0	0.7
MA-3	0.1	0.7	0	0
<b>Total MA</b>	<b>0.8</b>	<b>4.0</b>	<b>4.4</b>	<b>1.5</b>
Invasive Trees				
To Remove	0	5	0	0
To Remain	30	20	10	0
Trails (feet)				
Existing	559	1,722	1,609	0
Remain / Improve	169	1,313	917	0
Close / Relocate	390	409	692	0
New	188	0	0	0

### GOLDEN GATE HEIGHTS



### GRANDVIEW PARK



### HAWK HILL



### ROCK OUTCROP



## GOLDEN GATE PARK OAK WOODLANDS

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

The most extensive native coast live oak woodland in the City; high levels of recreational trail use and tourist visitation; and suitable habitat for a wide variety of resident and migratory bird species.

### SITE IMPROVEMENTS

Implementation of management recommendations at Golden Gate Park (Oak Woodlands, Lily Pond, Whiskey Hill, and Strawberry Hill) would not change significantly the overall look of the park and would result in:

- enhanced native oak woodland by preventing establishment of invasive tree species;
- more complex understory within the coast live oak woodland; and
- enhanced public safety by increasing and establishing view corridors.



Park Acreage	1,021.0
Natural Area Acreage	26.2
Management Area (acres)	
MA-1	0.7
MA-2	25.5
MA-3	0
<b>Total MA</b>	<b>26.2</b>
Invasive Trees	
To Remove	82
To Remain	818
Trails (feet)	
Existing	24,844
Remain / Improve	12,464
Close / Relocate	12,381
New	0
Dog Play Areas (acres)	
Existing	2.8
Remain	2.8
Monitor	Yes

## INTERIOR GREENBELT

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Extensive urban forest; populations of sensitive plant species; and suitable habitat for a variety of bird species.

### SITE IMPROVEMENTS

Implementation of management recommendations at Interior Greenbelt would not change significantly the overall look of the park and would result in restoration of a creek riparian corridor.



Park Acreage	19.4
Natural Area Acreage	16.5
Management Area (acres)	
MA-1	0
MA-2	1.8
MA-3	14.7
<b>Total MA</b>	<b>16.5</b>
Invasive Trees	
To Remove	140
To Remain	5,860
Trails (feet)	
Existing	935
Remain / Improve	935
Close / Relocate	0
New	620

## INDIA BASIN SHORELINE PARK

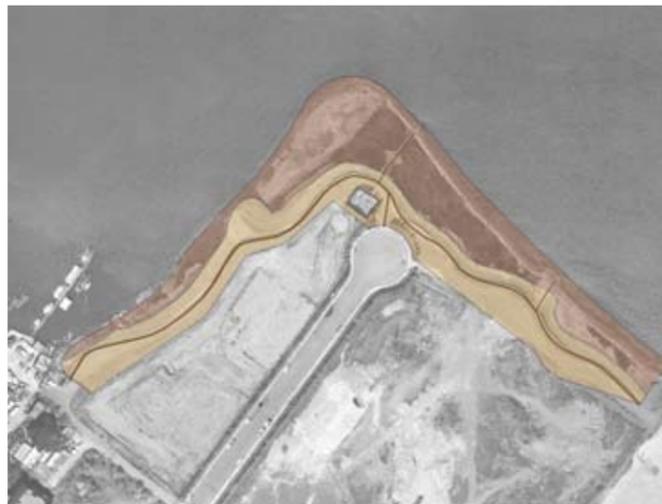
### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Recreational trail use on a segment of the Bay Trail; shoreline access to the Bay for fishing, kayaking, and other water-dependent recreation; one of only a few tidal salt marsh wetlands in the City; suitable habitat for a variety of shorebirds and foraging habitat for raptors; and views of the San Francisco Bay.

### SITE IMPROVEMENTS

Implementation of management recommendations at India Basin Shoreline Park would not change significantly the overall look of the park and would result in:

- protection and enhancement of grassland and upland refuge habitat;
- protection and enhancement of salt marsh wetlands; and
- enhancement of critical upland buffer habitat including shrubs and trees.



Park Acreage	11.8
Natural Area Acreage	6.2
Management Area (acres)	
MA-1	3.2
MA-2	2.8
MA-3	0
<b>Total MA</b>	<b>6.0</b>
Invasive Trees	
To Remove	0
To Remain	0
Trails (feet)	
Existing	1,885
Remain / Improve	1,885
Close / Relocate	0
New	0

## KITE HILL

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

High level of recreational use; grassland habitat; suitable habitat for a variety of bird species, including foraging habitat for raptors; and City views.

### SITE IMPROVEMENTS

Implementation of management recommendations at Kite Hill would not change significantly the overall look of the park and would result in:

- gradual increase in native grassland species; and
- delineation of a formal boundary for the ornamental garden



Park Acreage	2.5
Natural Area Acreage	2.5
Management Area (acres)	
MA-1	0.4
MA-2	0.5
MA-3	1.6
<b>Total MA</b>	<b>2.5</b>
Invasive Trees	
To Remove	0
To Remain	10
Trails (feet)	
Existing	1,957
Remain / Improve	1,559
Close / Relocate	398
New	0

## LAKE MERCED

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Largest freshwater lake in the City and the region; panoramic lake views; interpretive signs; numerous water-related recreational opportunities including fishing, rowing and sailing; popular perimeter trail providing recreational opportunities such as walking, running, biking and rollerblading; largest expanse of wetland habitat in the City; important habitat for native plants and populations of sensitive plant and animal species; significant great blue heron and crested cormorant nesting colonies; significant nesting area for approximately 50 species of local birds; one of the last populations of western pond turtles in the City; and important refuge for migratory birds.

### SITE IMPROVEMENTS

Implementation of management recommendations at Lake Merced would not change significantly the overall look of the park and would result in:

- improved access to lake edge on the east and west sides of the Impound causeway for fishing and other recreational activities;
- improved bird habitat by increasing willows and coastal scrub;
- formalization of informal trails away from the wetland;
- creation of more open grassland habitat;
- improved habitat for western pond turtles;
- no change to the existing Dog Play Area unless use patterns change; and
- improved access to Sunset Circle beach, the northwest beach, and Haas pier.



Park Acreage	614.0
Natural Area Acreage	395.0
Management Area (acres)	
MA-1	60.8
MA-2	101.8
MA-3	231.5
Total MA	394.1
Invasive Trees	
To Remove	134
To Remain	11,866
Trails (feet)	
Existing	11,106
Remain / Improve	7,787
Close / Relocate	3,319
New	365
Dog Play Areas (acres)	
Existing	5.0
Remain	5.0
Monitor	Yes

## MCLAREN PARK

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

High levels of recreational use on over 11 miles of trails; scenic views; complex assemblage of grassland, scrub, and forest habitats; population of sensitive plants, mission blue butterflies, and San Francisco fork-tailed damselfly; suitable habitat for a variety of resident and migratory bird species, including raptors and California quail; extensive grasslands providing habitat for butterflies and other insects; and diverse educational opportunities.

### SITE IMPROVEMENTS

Implementation of management recommendations at McLaren Park would not change significantly the overall look of the park and would result in:

- establishment of a stable boundary between the eucalyptus and grassland habitats;
- thinning of sapling and mature eucalyptus and replacement with higher wildlife value native vegetation;
- maintenance of City views;
- enhance habitat diversity and connectivity through restoration of native scrub and grassland habitats;
- improvement in riparian, coastal scrub, and marsh habitats;
- creation of artificial pool habitats to improve wildlife habitat;
- restoration of viable California quail habitat; and
- continued off-leash dog use of McLaren Park with protection of sensitive habitat areas through reduction of one of the three existing Dog Play Areas by approximately 14%. The other two Dog Play Areas would not change.



Park Acreage	312.6
Natural Area Acreage	165.3
Management Area (acres)	
MA-1	34.9
MA-2	68.3
MA-3	61.4
Total MA	164.6
Invasive Trees	
To Remove	809
To Remain	19,191
Trails (feet)	
Existing	59,185
Remain / Improve	43,504
Close / Relocate	15,681
New	0
Dog Play Areas (acres)	
Existing	61.7
Remain	53.4
Monitor	Yes

## MOUNT DAVIDSON

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

High quality migratory and resident bird habitat; panoramic City views; high levels of recreational trail use; rare reedgrass-huckleberry plant community; important habitat for native plants and populations of sensitive plant and animal species; extensive urban forest; suitable habitat for special-status species of butterflies; and diverse native grassland and scrub communities providing foraging habitat for raptors, butterflies, and other insects.

### SITE IMPROVEMENTS

Implementation of management recommendations at Mount Davidson would not change significantly the overall look of the park and would result in:

- establishment of a stable boundary between the eucalyptus and grassland habitats;
- thinning of sapling and mature eucalyptus and replacement with higher wildlife value native vegetation;
- enhancement of native scrub habitats; and
- restoration of native grasslands within the existing scrub and grasslands areas.



Park Acreage	40.2
Natural Area Acreage	40.2
Management Area (acres)	
MA-1	8.8
MA-2	11.0
MA-3	20.1
<b>Total MA</b>	<b>39.9</b>
Invasive Trees	
To Remove	1,600
To Remain	9,400
Trails (feet)	
Existing	15,456
Remain / Improve	12,589
Close / Relocate	2,867
New	0

## PALOU-PHELPS

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Diverse native grasslands; habitat for a variety of bird species, including raptors; City views; and recreational trail use.

### SITE IMPROVEMENTS

Implementation of management recommendations at Palou-Phelps would not change significantly the overall look of the park and would result in enhancement of native grasslands.



Park Acreage	2.5
Natural Area Acreage	2.1
Management Area (acres)	
MA-1	0.8
MA-2	0.4
MA-3	0.8
<b>Total MA</b>	<b>2.0</b>
Invasive Trees	
To Remove	2
To Remain	38
Trails (feet)	
Existing	1,049
Remain / Improve	522
Close / Relocate	527
New	496

## PINE LAKE

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Heavily used perimeter recreational trail; one of the few natural lakes in the City; significant wetland habitat; extensive urban forest; and habitat for a variety of bird species.

### SITE IMPROVEMENTS

Implementation of management recommendations at Pine Lake would not change significantly the overall look of the park and would result in:

- increased patch size of willows and coastal scrub and increase in the structural diversity of these habitats;
- no change to the existing Dog Play Area but restricted dog access to the lake itself; and
- restoration of the degraded shoreline.



Park Acreage	30.3
Natural Area Acreage	8.4
Management Area (acres)	
MA-1	1.0
MA-2	3.8
MA-3	3.6
<b>Total MA</b>	<b>8.4</b>
Invasive Trees	
To Remove	0
To Remain	1,000
Trails (feet)	
Existing	3,157
Remain / Improve	2,549
Close / Relocate	608
New	13
Dog Play Areas (acres)	
Existing	3.3
Remain	3.3
Monitor	No

## SHARP PARK

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Free-flowing creek (Sanchez Creek) and large lake (Laguna Salada); situated between two regionally significant open spaces (Malagra and Sweeney ridges); regionally important wildlife habitat and connections between habitat; wetland habitat that supports California red-legged frogs, San Francisco garter snake, mission blue butterfly, and San Francisco fork-tail damselfly; attractive habitat for resident and migratory birds; significant stands of coastal scrub habitat; and coastal access and views.

### SITE IMPROVEMENTS

Implementation of management recommendations at Sharp Park would result in:

- enhanced habitat for California red-legged frog and San Francisco garter snake;
- restoration of coastal scrub and riparian habitat in the canyon;
- protection of sensitive habitats and species at Laguna Salada;
- creation of a buffer zone between the wetlands and the golf course fairways; and
- protection of endangered San Francisco garter snake and the California red-legged frog habitat by restricting access to Horse Stable Pond, Laguna Salada, and Arrowhead pond (33 acres).



Park Acreage	411.0
Natural Area Acreage	237.2
Management Area (acres)	
MA-1	35.0
MA-2	125.1
MA-3	76.5
<b>Total MA</b>	<b>236.6</b>
Invasive Trees	
To Remove	15,000
To Remain	39,000
Trails (feet)	
Existing	14,741
Remain / Improve	14,088
Close / Relocate	653
New	1,792

## TANK HILL

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Diverse native grassland plant community; high levels of recreational use; outstanding City views; populations of sensitive plants; and suitable habitat for a variety of bird species and special-status species of butterflies.

### SITE IMPROVEMENTS

Implementation of management recommendations at Tank Hill would not change significantly the overall look of the park and would result in increased habitat diversity through installation of native scrub and trees.



Park Acreage	2.9
Natural Area Acreage	2.9
Management Area (acres)	
MA-1	1.5
MA-2	0.6
MA-3	0.7
<b>Total MA</b>	<b>2.8</b>
Invasive Trees	
To Remove	0
To Remain	50
Trails (feet)	
Existing	2,672
Remain / Improve	1,261
Close / Relocate	1,411
New	0

## 15<sup>th</sup> AVENUE STEPS

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Views of the surrounding neighborhoods; supports native oak trees and habitat suitable for a variety of resident and migratory bird species.

### SITE IMPROVEMENTS

Implementation of management recommendations at 15th Avenue Steps would not change significantly the overall look of the park and would result in protection and enhancement of native habitats including oak woodland and coastal scrub communities.



Park Acreage	0.3
Natural Area Acreage	0.3
Management Area (acres)	
MA-1	0
MA-2	0.2
MA-3	0
<b>Total MA</b>	<b>0.2</b>
Invasive Trees	
To Remove	0
To Remain	0
Trails (feet)	
Existing	0
Remain / Improve	0
Close / Relocate	0
New	0

## TWIN PEAKS

### EXISTING SOCIOECONOMIC VALUES AND ECOSYSTEM FUNCTIONS

Outstanding City views; a world famous tourist attraction; high levels of recreational use including a segment of the Bay Ridge Trail; interpretive signs; significant native grassland and scrub communities providing habitat for butterflies and other insects; populations of sensitive plants; one of only a few populations in the world of the endangered mission blue butterfly; and suitable habitat for a wide variety of bird species.

### SITE IMPROVEMENTS

Implementation of management recommendations at Twin Peaks would not change significantly the overall look of the park and would result in:

- preservation and enhancement of native grassland habitat; and
- increased habitat for mission blue butterflies.



Park Acreage	34.1
Natural Area Acreage	31.1
Management Area (acres)	
MA-1	12.6
MA-2	14.3
MA-3	3.8
<b>Total MA</b>	<b>30.7</b>
Invasive Trees	
To Remove	3
To Remain	87
Trails (feet)	
Existing	8,741
Remain / Improve	6,438
Close / Relocate	2,303
New	501