

## 1. Introduction

The Mountain Lake Enhancement Plan and Environmental Assessment is a cooperative effort between the Presidio Trust (Trust), the National Park Service (NPS), and the Golden Gate National Parks Association (GGNPA). The Presidio Trust is a wholly-owned federal government corporation whose purposes are to preserve and enhance the Presidio as a national park, while at the same time ensuring that the Presidio becomes financially self-sufficient by 2013. The Trust assumed administrative jurisdiction over 80 percent of the Presidio on July 1, 1998, and the NPS retains jurisdiction over the coastal areas. The Trust is managed by a seven-person Board of Directors, on which a Department of Interior representative serves. NPS, in cooperation with the Trust, provides visitor services and interpretive and educational programs throughout the Presidio. The Trust is lead agency for environmental review and compliance under the National Environmental Policy Act (NEPA). GGNPA is administering project funds and coordinating phase one of the project. The San Francisco International Airport has provided \$500,000 to fund the first phase of the Mountain Lake Enhancement Plan under the terms and conditions outlined within the Cooperative Agreement for the Restoration of Mountain Lake, 24 July 1998.

The overall goal of the Mountain Lake Enhancement Plan is to improve the health of the lake and adjacent shoreline and terrestrial environments within the 14.25-acre Project Area. This document analyzes three site plan alternatives (Alternatives 1, 2, and 3) and a no action alternative. It is a project-level EA that is based upon the Presidio Trust Act and the 1994 General Management Plan Amendment for the Presidio of San Francisco (GMPA) prepared by the NPS, a planning document that provides guidelines regarding the management, use, and development of the Presidio. The GMPA was analyzed in its entirety in a final environmental impact statement (EIS) that was approved in 1994. The EIS is incorporated by reference into this EA (1). Each alternative is consistent with the GMPA, as well as the Draft Presidio Vegetation Management Plan (NPS, 2000). Section 2.1.2, Relevant Plans and Policies provides additional information regarding the consistency of the Alternatives with these plans.

(1) - The Presidio GMPA EIS can be viewed at the Presidio Trust, 34 Graham Street, San Francisco, California, or at the GGNRA Park Headquarters, Building 201 Fort Mason, San Francisco, California.

Because this EA is tiered from the GMPA EIS, the broader program level analysis contained within the EIS is not repeated in this EA. This EA provides a detailed and focused analysis of the specific issues associated with the enhancement of the Project Area. This EA has been prepared in compliance with the requirements of NEPA and the regulations of the Council on Environmental Quality.

### 1.1 PURPOSE AND NEED

### **1.1.1 PROJECT LOCATION**

The 14.25-acre Project Area is located on the south edge of the Presidio of San Francisco ("The Presidio"), which is a National Historic Landmark and is a portion of the Golden Gate National Recreation Area (GGNRA; Figure 1). The Project Area falls within two jurisdictions. The majority of the Project Area (13.1 acres) falls within the Presidio, while the southwestern tip (1.1 acres) falls within Mountain Lake Park, which is administered by the City and County of San Francisco (Figure 2). The Project Area includes Mountain Lake, adjacent shoreline and upland areas, a portion of the Juan Bautista de Anza Historic Trail, and a portion of Mountain Lake Park, a developed city park along the south side of the lake.

### **1.1.2 SITE SIGNIFICANCE**

Mountain Lake is one of the few remaining natural lakes in San Francisco and is the only lake within the Presidio (Figure 1). The Project Area is a popular visitor destination with a variety of natural, cultural, and recreational resources.

The Project Area contains open water, wetland, and riparian woodland that support wildlife such as ruddy ducks (*Oxyura jamaicensis*) and the red-shouldered hawk (*Buteo lineatus*), and special status species like the willow flycatcher (*Empidonax traillii*).

Mountain Lake is historically significant, and is a contributing feature to the Presidio of San Francisco National Historic Landmark District. The Ohlone Indians were the earliest human inhabitants of the Presidio and likely used Mountain Lake as a freshwater resource. A 1776 diary entry from a member of the de Anza expedition contains the earliest written record of the Mountain Lake area. In 1897, the U.S. Army began to use Mountain Lake as a water source for domestic purposes. The Project Area contains one known historic structure, a pump along the east arm of the lake. Excellent opportunities exist to interpret the history of Mountain Lake to the public.

Mountain Lake is a popular destination for visitors, neighbors, and other park users. The lake is easily accessible by foot, bicycle, and public transportation. Visitors engage in many activities at the lake including hiking, jogging, dog walking, bird watching, and picnicking. A portion of the Juan Bautista de Anza Historic Trail runs through the Project Area, along West Pacific Avenue (Figure 2).

### **1.1.3 NEED**

The overall need for the Mountain Lake Enhancement Plan is to improve the biological health of Mountain Lake and to protect, and where appropriate, enhance the recreational, cultural, and historic resources of the Presidio. The following sub-sections briefly describe the need for the Mountain Lake Enhancement Plan. These issues are discussed in greater detail in Section 2, Affected Environment.



**Figure 1: Site Vicinity Map of The Mountain Lake Area**

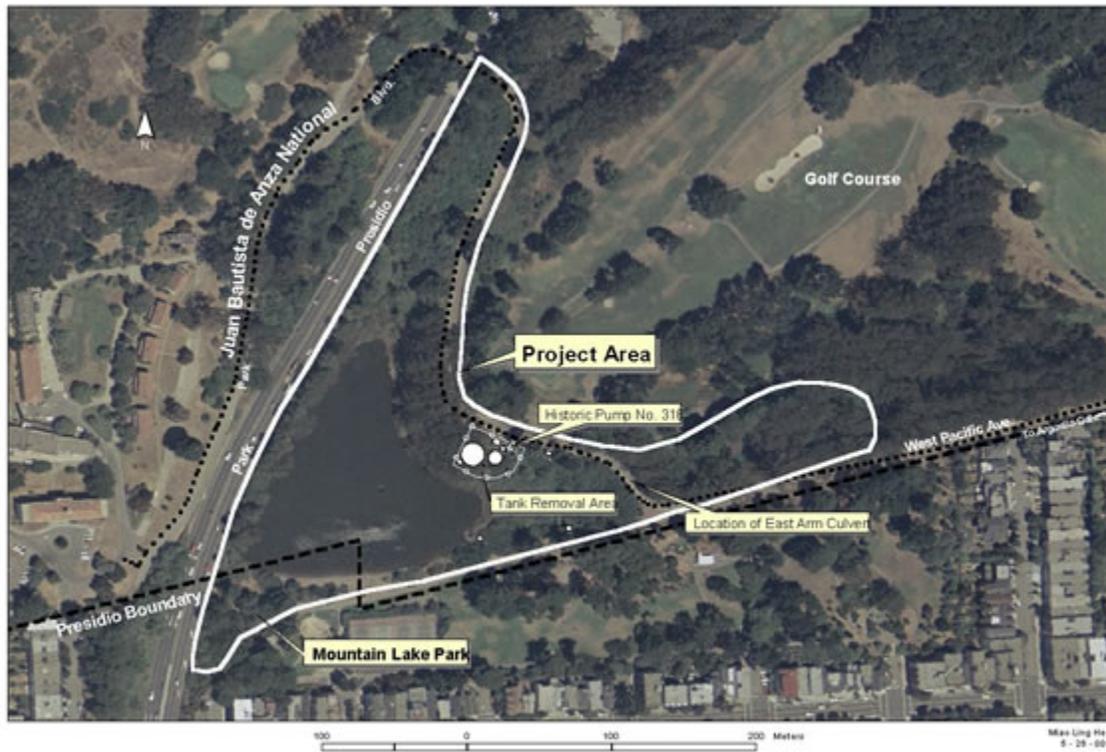


Figure 2: Project Area

### ***1.1.3.1 Water Quality***

The Mountain Lake project is needed to improve the deteriorating water quality of Mountain Lake. Because of numerous direct and indirect human impacts over time, today Mountain Lake is less than one-third of its original depth and 40% smaller in area, suffers from persistent algae blooms, periodic fish kills, eutrophication (when a high nutrient content results in low dissolved oxygen levels), and poor water quality. Leaves falling into the lake from adjacent eucalyptus trees increase nutrient inputs and darken the lake. As a result of human activity in and around the Project Area, Mountain Lake is now shallow enough for emergent vegetation to spread into the open water area of the lake.

### ***1.1.3.2 Natural Resources***

The Mountain Lake project is needed to improve and enhance the natural resources of the lake for its flora and fauna. The Project Area contains a mosaic of native and exotic plant and animal species. Within the lake, only exotic species of fish such as carp and spotted

bass are found. Non-native bullfrogs and turtles predominate in the lake. Native species such as the red-legged frog and Western pond turtle are not found in the lake. Upland areas around the lake include remnant native wetland and riparian woodland (Figure 3). These habitats are relatively uncommon at the Presidio and in San Francisco. Native habitats at Mountain Lake have been severely impacted by the spread of invasive exotic trees and weeds. Exotic trees cover nearly half of the upland areas within the Project Area. Exotic weeds cover over 2/3 of the upland areas, and are rapidly spreading into remaining native habitats, decreasing their structural diversity and habitat value.

### ***1.1.3.3 Cultural and Historic Resources***

The Mountain Lake project is needed to protect and enhance the cultural and historic resources of the Presidio. Mountain Lake is a contributing feature to the Presidio of San Francisco National Historic Landmark District. In the 1993 National Historic Landmark Nomination update, the Project Area is predicted to have prehistoric archeological potential. Mountain Lake probably served as a freshwater resource for Native American tribes. It is believed to be the site of a 1776 Spanish encampment. Recent archaeological and historical reviews of the Project Area have revealed one historic pump, located to the east of the lake (Appendix A). This is currently located inside a fenced enclosure that is not open to the public. No other known cultural resources exist within the Project Area.

### ***1.1.3.4 Recreation and Visitor Amenities***

The Mountain Lake project is needed to protect the recreational resources and improve the visitor amenities of the Presidio. Mountain Lake is a popular visitor and recreational destination. The Project Area is currently used for a wide variety of recreational uses including jogging, walking, dog-walking, and bird-watching, as well as science and education programs. However, the existing recreational setting is degraded. Shorelines are impacted by unrestricted human access, lake views are restricted from the Juan Bautista de Anza Trail, and non-native invasive vegetation limits wildlife habitat (Figures 3 and 4). The Project Area contains few visitor amenities (such as wayside exhibits, group gathering areas, and benches) to support existing recreation and visitor uses of the site.

## **1.1.4 PURPOSE AND PROJECT OBJECTIVES**

The objectives of the Mountain Lake Enhancement Plan have been developed to support the need for the project, as summarized above in Section 1.1.3. They are consistent with the broad goals defined in the approved 1994 GMPA, which call for promotion of Mountain Lake's "natural and recreational values" for the enjoyment of present and future

generations. The GMPA also specifies protection of Mountain Lake and surrounding terrestrial systems.

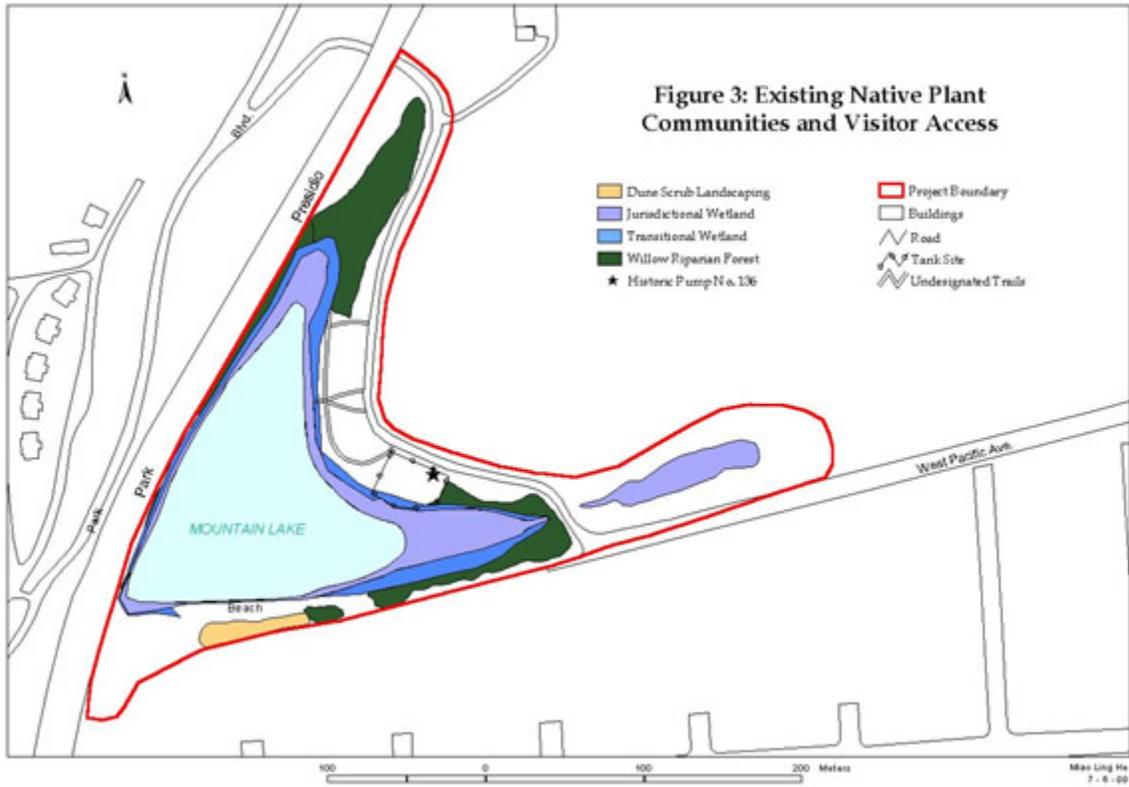
The broad objectives provided by the GMPA for Mountain Lake were further refined as a condition of project funding. The San Francisco International Airport (SFIA) provided funding for phase one of the Mountain Lake Enhancement Project as approved mitigation for wetland filling activities related to airport terminal construction. The Regional Water Quality Control Board (RWQCB) approved these more specific Mountain Lake Enhancement Project objectives, as outlined in the Cooperative Agreement for the Restoration of Mountain Lake (SFIA, 1998):

- Identification of the source(s) of sedimentation, and recommendations for the reduction in the sources of such sedimentation
- Identification of contaminants in sediment and recommendations for remediation
- Recommendations for habitat enhancement
- Recommendations for public access enhancement
- A mitigation monitoring program

The Presidio Trust, GGNPA, and NPS reviewed the broader programmatic objectives for Mountain Lake contained within the 1994 GMPA and the 1998 SFIA funding requirements and formulated the following objectives for the Mountain Lake Enhancement Plan:

#### ***1.1.4.1 Objective 1: Improve Water Quality***

Addressing the factors that impact water quality, such as the shallowness of the lake, nutrient-rich sediments, and nutrient inputs from eucalyptus trees, has been identified as the most important project element in the Mountain Lake Enhancement Plan.



<b>Figure 3: Existing Native Plant Communities and Visitor Access</b>			
	Dune Scrub Landscaping		Project Boundary
	Jurisdictional Wetland		Buildings
	Transitional Wetland		Road
	Willow Riparian Forest		Tank Site
	Historic Pump No. 136		Undesignated Trails

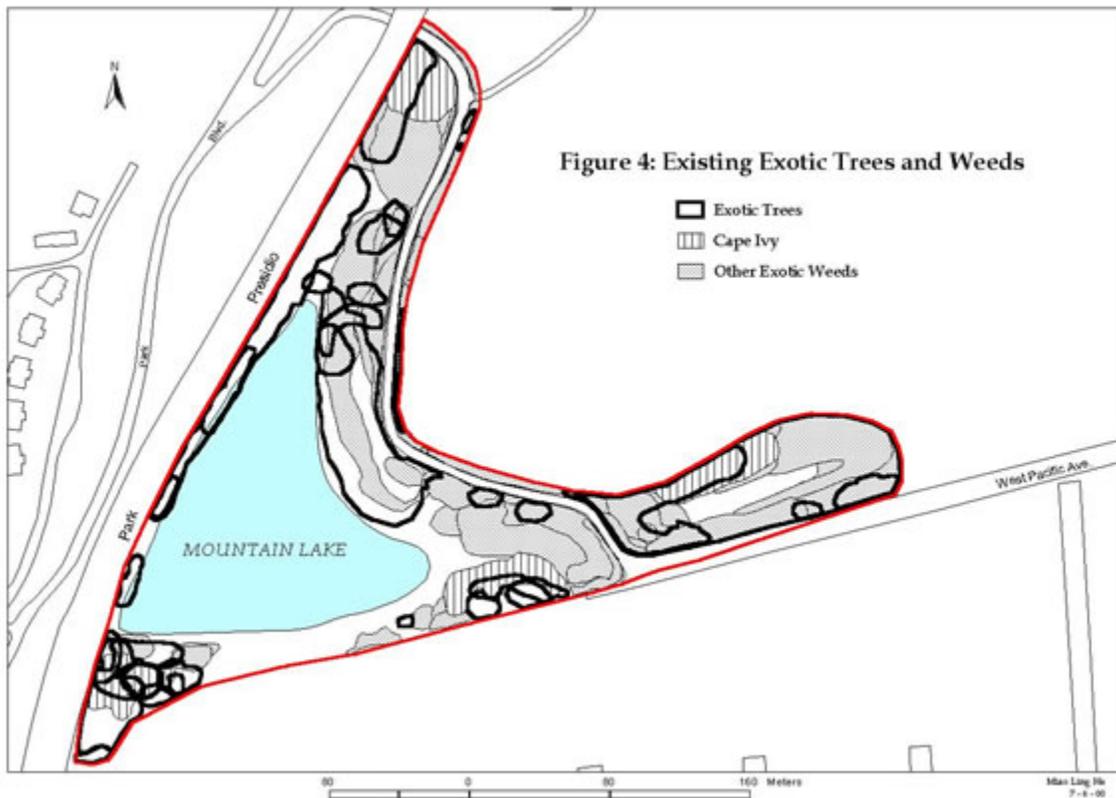


Figure 4: Existing Exotic Trees and Weeds	
	Exotic Trees
	Cape Ivy
	Other Exotic Weeds

**1.1.4.2 Objective 2: Enhance Habitat**

The protection and enhancement of native wetland and upland plant communities at Mountain Lake would increase habitat value. Enhancements include increasing native plant diversity and the extent of native plant communities, as well as improving habitat quality by removing invasive exotic species and increasing structural diversity.

**1.1.4.3 Objective 3: Enhance Public Access**

Mountain Lake is a popular destination for a variety of visitors. Pedestrians, dog walkers, and cyclists use the area. Constructing visitor access improvements such as trails and benches would both improve the visitor experience and support Objectives 1 and 2 by eliminating un-designated trails and eroding slopes.

### **1.1.5 ISSUES TO BE ADDRESSED DURING PLANNING AND IMPLEMENTATION**

During the public scoping period associated with this planning process, the Presidio Trust issued a request for early consultation with federal, state, and local authorities. Many agencies submitted initial comments in response to this request. Issues and concerns raised by the public during the planning process are contained in Section 5, Consultation and Coordination. The issues identified below will be resolved during the planning and implementation process.

#### ***1.1.5.1 California Environmental Quality Act (CEQA) and Mountain Lake Park***

A portion of the Project Area includes Mountain Lake Park, a city park that is managed by the City of San Francisco Recreation and Parks Department. The Proposed Action does not include any actions within the city park's jurisdiction and therefore does not require any city approvals and/or CEQA review. All proposed enhancement measures contained within this document were designed to complement the natural resources and visitor uses of Mountain Lake Park. Though it is not believed that city approvals and CEQA are required at this point in the planning process, the city's Planning Department and Recreation and Parks Department would remain closely involved throughout the remainder of the planning and forthcoming implementation phases.

#### ***1.1.5.2 Permitting***

Early consultation with regional and federal regulatory authorities revealed that proposed enhancement activities may require additional permits and/or certifications. The degree to which regional and federal permits are required would be determined following the adoption of a preferred project alternative.

#### ***1.1.5.3 Lake Bottom Sediment Quality***

The Presidio Trust remediation program is currently pursuing a regulatory process to

assess whether and ensure that Mountain Lake's bottom sediment is not contaminated. Initial consultant studies and U.S. Army recommendations suggest that the sediment does not exceed clean-up thresholds and would not require remedial action. A formal decision regarding this issue will be incorporated into a final remedial action decision document, which is scheduled for release in early 2001. The outcome of this regulatory issue may affect the manner in which dredged lake bottom material is disposed of and/or used as part of the Mountain Lake Enhancement Plan.

#### ***1.1.5.4 Historic Preservation***

The Presidio of San Francisco is a National Historic Landmark District with the period of historical significance extending from 1776 to 1945. Mountain Lake is a contributing feature to the Landmark District due to its physical prominence and its historical associations, and has prehistoric archeological potential (listed as P3 in the NHL). Mountain Lake was used historically as a water source. There is one historic object (PE-316) located within the Project Area, a water pump that is housed in a non-historic structure. During the construction phases of the Enhancement Project, professional archeological monitoring would occur to ensure that any unanticipated, post-review discoveries are treated appropriately. If any archeological or other historic resources are discovered during the construction process, the State Historic Preservation Office and the Advisory Council on Historic Preservation would be notified and the protocols outlined in 36 CFR Part 800.13 "Post Discoveries" would be followed.