



## Current Projects at Mountain Lake: Questions and Answers

### ***What Trust projects are currently active at Mountain Lake?***

The Trust is currently working on several projects at Mountain Lake. These include the Mountain Lake Enhancement Project and the Mountain Lake Remediation Project.

### ***What is the Mountain Lake Enhancement Project?***

In 2001, the Presidio Trust (Trust), National Park Service (NPS), and Golden Gate National Parks Conservancy (Parks Conservancy) completed a planning effort with public review, that identified a number of strategies for enhancing the health of Mountain Lake. The Mountain Lake Enhancement Project is a multi-year, multi-phase effort to improve the health of Mountain Lake by removing sediment to deepen the lake and improve water quality, expanding wildlife habitat through landscape restoration, and enhancing the visitor experience. The first phase of the Enhancement Project, which included habitat restoration and new trails and benches along the south and east shores of the lake, was implemented by the Trust, Parks Conservancy and thousands of community volunteers in 2002 and 2003 with funding from the San Francisco International Airport. The 2000 Mountain Lake Enhancement Plan also identified the removal of sediment to deepen the lake as one of the key actions needed to restore the health of Mountain Lake. Deepening the lake will increase the volume of water in the lake and keep the lake water cooler, which will minimize the likelihood of algae blooms and fish kills. Plans to remove sediment from the lake were put on hold in 2002 when it was discovered that the sediment in the lake was contaminated.

### ***What is the East Arm Project?***

As part of the Mountain Lake Enhancement project, the East Arm will be restored to freshwater wetland and riparian woodland. In April or May 2012, a small amount of soil will be moved to improve water flow. In summer 2012, an archeology project will look for a tunnel that historically went from the east arm to above El Polin Spring. In 2013, the East Arm wetland will be enlarged. Trees will be removed and the wetland will be graded and planted.

### ***What is the Mountain Lake Remediation Project?***

Following the discovery of contaminated sediments, the Trust began working with the California Department of Toxic Substances Control (DTSC) to further identify the nature and extent of contaminants in sediment and identify remedial alternatives to address the contamination consistent with the future use of the lake for native habitat and recreational purposes. Dredging the lake to remove the contaminated sediments is the Trust's preferred remedial alternative.

### ***What are the contaminants in Mountain Lake? Is the lake dangerous?***

Sediment in the lake contains elevated concentrations of lead and motor oil that historically entered the lake in storm water runoff from Highway 1 and adjacent areas, including the Presidio Golf Course. The contaminants are buried in the lake sediment and do not pose a risk to human health, however they do pose a potential risk to the freshwater aquatic habitat of the lake. Recent tests of sediment and imported sand at the beach area confirm that the beach area is safe for human use and meets ecological standards.

### ***How will the lake be cleaned up?***

The Trust plans to remove contaminated sediment from the lake by dredging. The dredged sediments would be processed on site to remove excess water and then placed in trucks and hauled to a disposal facility off the Presidio. The Trust anticipates removal of approximately 15,600 cubic yards of sediment to ensure the lake is healthy for freshwater plants and aquatic organisms. After dredging, the bottom of the lake would be graded to a stable and natural lake configuration. Preparatory work to the dredging, including preparation of a staging area, would begin in summer 2012. Dredging is scheduled to begin in early 2013 and is anticipated to take one year to complete.

### ***Doesn't run-off from Highway 1 still enter the Lake?***

Under a recent settlement with Caltrans, run-off from Highway 1 will be diverted to ensure that untreated run-off from the highway does not re-contaminate lake sediments. The Presidio Golf Course has changed its management practices to reduce the use of pesticides, and run-off from the golf-course is monitored to prevent future contamination. The lake will continue to be monitored for nutrient runoff. Areas with increased levels of sediment or nutrient inflows will be addressed as necessary.

### ***Why is Caltrans working on the roadway?***

Caltrans has determined that Highway 1 will need to be reinforced prior to the dredging of Mountain Lake. This work would involve the installation of below-grade, stone-filled support columns within the roadway to the west of the Lake. Caltrans also plans to install new piping and filtration systems within catch basins on the highway to prevent untreated water from entering Mountain Lake. The construction is scheduled to begin in July 2012 and continue for three to five months.

### ***What about the lawsuit against Caltrans? Has that settled?***

In February 2012, Judge Hamilton approved a civil settlement with Caltrans resolving claims brought by the Trust and the U.S. Army resulting from Caltrans' construction and operation of Highway 1 through the Presidio. Under the terms of the settlement, Caltrans has paid \$5.5 million toward the remediation of Mountain Lake sediment contamination, will fund and construct runoff diversion projects to eliminate future discharges to Mountain Lake, and reimbursed a portion of the United States' legal costs.

### ***What is the remediation process?***

In March 2012, the DTSC and the Trust released a Draft Feasibility Study and Remedial Action Plan (FS/RAP) for a 45-day public comment period. The FS/RAP recommends removal of contaminated sediment by dredging as the preferred remedial action for Mountain Lake. The DTSC also released an Initial Study and Draft Negative Declaration prepared in compliance with the California Environmental Quality Act (CEQA) for public review. The public comment period ended on May 3, 2012. The DTSC will now respond to public comments and issue a Final FS/RAP.

### ***What neighborhood impacts will result from the work activities?***

The Trust is evaluating options for site access, staging operations, and work hours to reduce impacts on public use of the park. That review is not complete, but we do foresee the following likely impacts:

- Closure of areas around the lake to the public during remedial construction
- Some targeted tree and vegetation removal for site access and to clear areas for operations
- Truck traffic in some areas
- Construction noise
- Nighttime work and lane closures on Highway 1

The Trust is committed to notifying the public in advance of disruptive work.

### ***What is the relationship between the remediation project and the broader effort to enhance Mountain Lake?***

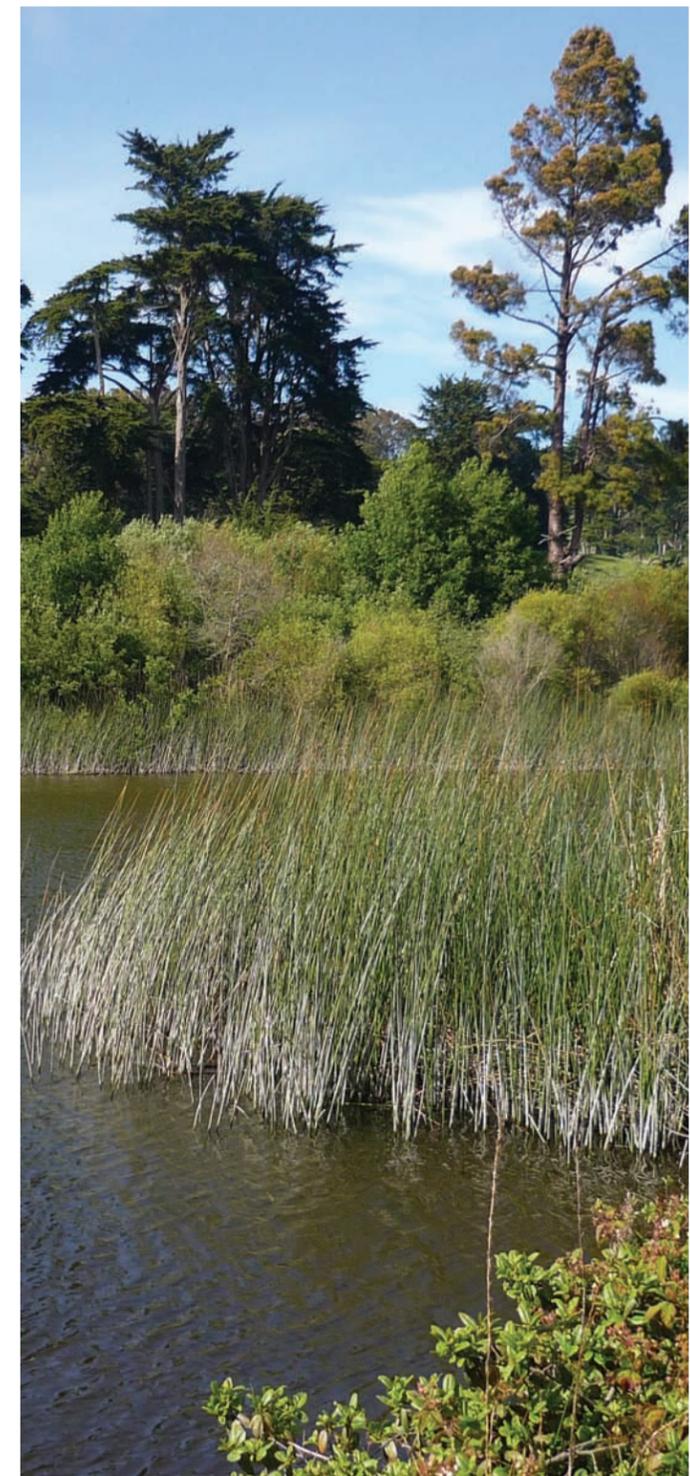
As described above, the 2000 Mountain Lake Enhancement Plan identified the removal of sediment to deepen the lake as one of the key actions needed to restore the health of Mountain Lake. The removal of contaminated sediment from Mountain Lake proposed for the remediation project is consistent with the Enhancement Plan goal of deepening the lake to enhance the lake's health.

The 2000 Enhancement Plan identified the removal of approximately 11,500 cubic yards of sediment to deepen the lake as a key action. The proposed remedial alternative is to remove approximately 15,600 cubic yards of contaminated sediment. After dredging, the bottom of the lake would be graded to create a stable and more natural lake profile and allow for a slope to discourage undesired plants and encourage submerged aquatic vegetation which will help the lake's water quality and wildlife habitat. Native wildlife will be re-introduced to the lake after it is dredged. The existing turtles and fish will be live-trapped and transferred to a refuge in Napa this summer, before dredging.

Areas where vegetation is removed to provide access for equipment used as part of the remedial effort will be replanted to restore native habitat, restore forest areas, and to buffer views of and noise from Park Presidio. All of these actions, though undertaken as part of our effort to remove contamination from the lake, are consistent with the actions identified in the Enhancement Plan and other Trust land management planning documents.

### ***What other elements of the Enhancement Plan will be implemented following the remediation?***

Other actions that will be undertaken include habitat restoration in the north arm and along the west shore of the lake; historic forest preservation along Park Presidio north of the lake and along West Pacific; sediment removal, wetland restoration, and habitat enhancement in the east arm; soil stabilization and drainage improvements along West Pacific and the golf course; the introduction of native lake wildlife and submerged aquatic plants; and the installation of mechanical aeration to improve water quality in the lake. Interpretation strategies regarding the ecological enhancement actions will be implemented to tell the lake story.



# The Future of Mountain Lake



May 19, 2012



# Upcoming Activities at Mountain Lake

## Coniferous Woodland

After remediation this area will be restored as woodland using a mix of oak, pine, and cypress underplanted with native shrubs such as toyon and coffeeberry.

## North Arm Willow Riparian Woodland

Native wetlands and woodland will be restored in the north arm by removing exotics and planting native species such as lady fern, American dogwood, wax myrtle, arroyo willow, and shining willow.

## West Shore Buffer

After roadway stabilization and dredging, a dense buffer of shore pine, Bishop pine, native trees, and native shrubs will be planted along the west shore to buffer views of and noise from Park Presidio and to provide wildlife habitat.

## East Shore

Any areas disturbed during dredging will be restored with the same mix of wetland, willow woodland, and oak woodland species planted in 2002 – 2004. The existing trail and benches will be maintained.

## Mountain Lake

15,600 cubic yards of sediment will be dredged to remove contaminants. Native submerged aquatic plant species and native fauna will be reintroduced, mechanical aeration installed, and other adaptive management actions undertaken to improve water quality and enhance the health of the lake.

## South Shore Riparian Woodland

Native wetland and willow woodland along the south shore will be protected during construction. After dredging, habitat values in this area will be enhanced through removal of invasive exotics and infill planting of native species such as red alder, American dogwood, wax myrtle, willow, and blue elderberry.

## Historic Eucalyptus Forest

Existing historic eucalyptus groves along the south and west edge of the golf course will be preserved. Trees will be pruned to improve their structure and open up their canopy to allow more sunlight into the groves. Invasive understory species will be replaced with native and/or non-invasive horticultural species.

## West Pacific

The West Pacific multi-use trail will remain. Gaps in existing forest plantings along the north edge of the historic brick swale will be infilled. Sedimentation in the East Arm will be reduced by stabilizing bare soil and installing bioswales to capture and treat water before it flows into the lake. New opportunities to stop along the trail and view the East Arm will be created.

Preserve Eucalyptus Wind Break In Place

North Arm Wetland

Mountain Lake

South Shore Wetland

## East Arm

Sediment and eucalyptus will be removed from the bottom of the east arm to improve air movement, improve drainage, and expand wetland habitat. Native wetland and riparian woodland species such as arroyo willow, red alder, California honeysuckle, and blue elderberry will be planted.

