

**UCSF Mount Sutro Open Space Reserve
Proposed Hazard Reduction Measures, November 2013**

Questions & Answers

What are the hazard reduction measures UCSF is proposing for the Mount Sutro Open Space Reserve?

In place of the work proposed and evaluated in the Draft Environmental Impact Report (EIR), which was published in January 2013, UCSF is proposing an alternative plan that will reduce fire hazards within the Reserve and near developed areas adjoining the Reserve. Work would occur in 25 acres of the 61-acre Reserve, including roadside areas along Medical Center Way from Johnstone Drive to the Environmental Health and Safety Buildings. A map of the planned work areas can be found here: <http://bit.ly/1bd8z27>

The work includes thinning the forest by removing trees less than 10" in stem diameter in the North and South areas and less than 6" in stem diameter in the West area. Shrubs would be thinned and perennial plants would be mowed. Cut materials would be chipped and spread on site.

How will UCSF keep everything from growing back?

UCSF will use mechanical means for controlling regrowth. Herbicides will not be used. Stumps would be covered with plastic and stapled at time of cutting to inhibit regrowth, and shrub re-sprouts would be mechanically cut with hand tools.

How will you prevent poison oak and blackberry from overrunning the trails without herbicides?

We have not used herbicides in the Sutro Reserve since 2008 and have worked to control poison oak and blackberry by cutting or mowing them back. It's challenging to keep up with the growth, but as a health sciences university, we believe the right thing to do is not to use herbicides in the Reserve. We also plan to use goats to control the growth of some vegetation.

How long will this work take to complete?

We expect it will take approximately one month to implement the hazard reduction measures.

Does UCSF need to conduct an Environmental Impact Report (EIR) before it conducts this work?

Yes, the current Draft EIR will be revised to reflect the modified project.

When will the EIR be circulated?

Revised chapters of the Draft EIR will be published in February 2014, and there will be a 45-day public comment period. A public hearing to receive verbal comments on the revised Draft EIR will be held in March 2014. The written responses to comments on the original Draft EIR and revised chapters will be completed and published, with final EIR certification expected in May or June of 2014.

Will removing trees and underbrush dry out the forest and create more fire danger?

No, removing trees and underbrush from parts of the forest will not make it more fire prone. While a forest captures water and shades the ground from the sun, it does not store moisture very well. Forests are composed of plants that are designed to absorb moisture from the soil and return it to the atmosphere. This work will remove small trees and shrubs that act as a ladder to move a fire up into the canopy of the forest. It will also clear accumulated, dead material that is part of, or lodged in, living shrubs on the forest floor. Shrubs that are cut will re-sprout and support a greater percentage of living biomass that is less fire-prone.

You've said that fire would spread quickly in the Reserve and would burn at a rate of 40 acres in 20 minutes. How was this calculated?

Fire spread was modeled using the BehavePlus program that is distributed by the USDA Forest Service. This model estimates wildland fire potential under various fuels, weather, and topographic situations. For the north wind scenario, we used a mid-flame wind speed of 20 miles per hour, a 30% average slope, burning through very high load broadleaf litter that we currently have in the Reserve.

What makes the Reserve a fire hazard? It appears damp and shrouded in fog much of the year, and some people even call it a cloud forest.

The forest located in the Mount Sutro Open Space Reserve is not a cloud forest. The moderate temperatures of San Francisco are neither tropical nor sub-tropical, which is the climate where cloud forests exist. Even with the dense fog that often blankets the Reserve, the area is comparatively dry due to the characteristics of the eucalyptus trees. Eucalyptus trees pull water from the soil, tying up the moisture in its roots. The forest in the Reserve is at risk of catching fire for this reason. In fact, over the last century, six wildfires have burned Mount Sutro, including one that burned 100 acres.

History also shows that the fog zone of the San Francisco Bay region is not immune to catastrophic wildfires. A pre-settlement fire history of Mount Tamalpais in Marin County documented that fires hot enough to scar Redwood trees occurred approximately every 25 years, so fires were not uncommon. More recently, the Bay Area coastal zone has suffered a number of catastrophic fires.

In the Oakland Tunnel Fire in October 1991, one of the major fuels was the blue gum eucalyptus, the same species present on Mount Sutro. The 1995 Vision Fire in Inverness, which consumed 14,000 acres, occurred in a dense fog zone very much like that of Mount Sutro. During the fire's peak, when Santa Ana-type winds blew from the north to the northeast, it ran at 1,000 acres per hour. In 2008 in Santa Cruz, a fire started along Highway 1 and quickly moved from grass to blue gum eucalyptus. The fire moved rapidly up the hills, destroying many homes and overwhelming firefighting efforts.

A running, high-intensity flame front relies only on relatively small fuels in two fuel classes: one-hour fuels and ten-hour fuels that can dry out within those short periods of hot, dry wind. A running fire takes advantage of fuels up to approximately the size of a thumb, or one inch in diameter. One-hour and ten-hour fuels are labeled as such because the internal moisture and temperature of plants adjust to weather conditions in just one to ten hours, a very short time frame. On those dates when the Tunnel, Vision and Santa Cruz fires burned, an ignition adjacent to Mount Sutro could have had the same result. In July 2008, when fires burned throughout California, San Francisco experienced almost two weeks of weather in which Mount Sutro could have burned with high intensity.

The California Department of Forestry has publicly stated that 2013 is one of the driest winters on record, with the lack of rain resulting in dry conditions across the state.

Is UCSF planning to construct buildings in the Reserve?

No, UCSF does not plan to construct buildings in the Reserve, which is designated as permanent open space.

Will any replanting be done in the Reserve?

The proposed Hazard Reduction Measures do not include specific plans for replanting. However, landscaping and planting in the Reserve – activities that have occurred throughout the Reserve in the past and that are exempt from environmental review – will continue to occur in the Reserve in the future as part of regular and ongoing open space improvements.

In addition to fire safety measures, what other actions are you planning to take in the future?

As with all of its facilities and properties, UCSF Facilities Services conducts ongoing, regular maintenance in the Reserve including: removal of storm debris, downed trees or branches, hazardous trees, trash, campsites; managing overgrown vegetation, including near roads, trails, parking areas, walkways, stairs, and buildings; scheduled tree pruning every two years or as necessary to keep buildings, roads and pathways safe. In addition, regular maintenance in the Rotary Garden on the summit includes removal of invasive sprouts and maintenance of the perimeter of the summit by cutting back encroaching plants.

Where can I get more information?

For more information, please visit:

<http://www.ucsf.edu/about/cgr/current-projects/mount-sutro-open-space-reserve>.