

## Status Report

# University of California, Berkeley Campus Wildland Fire Prevention Program

November 24, 1999

### SUMMARY

*The approximately 900 acre area above the Berkeley Central Campus Park constitutes the Hill Area watersheds of Strawberry and Claremont Canyons; which includes such uses as the Botanical Garden, Haas Clubhouse and pools, Witter Field, Foothill Housing, Greek Theatre, Memorial Stadium, Math Sciences Research Institute, Lawrence Hall of Science, Spaces Sciences Lab, and the Field Station for Behavioral Research. The area under contract to the U.S. Department of Energy, Lawrence Berkeley National Laboratory is managed separately. The upper portions of Strawberry and Claremont Canyons are generally undeveloped, except for roads and fire trails. The campus is responsible for management of the majority of the Hill Area and has sought to balance the academic uses of the Hill Area with the ever present need for buildings, infrastructure, roadways and parking at Berkeley, and fire prevention.*

*The Hill Area of the Berkeley campus along its interface with private properties in the cities of Berkeley and Oakland is dominated by non-native shrublands and forests. Some of these areas were identified as priority treatment areas by the Campus Hill Area Fire Prevention Committee and the administration several years ago.*

*This report explains the development of the campus wildland fire prevention program through the 1990s. The budget history and current programs are explained.*

### History and Background

In 1991, the Wildland Fire Prevention program was transferred from the Office of Environment, Health and Safety to Physical Plant - Campus Services (PP-CS) and Physical and Environmental Planning (PEP) of Planning, Design and Construction for planning, budgeting, and implementation. An intensive series of meetings were held by the Campus Hill Area Fire Prevention Committee for several years where priorities were set, prescriptions were designed and work programs for the various participants were developed.

Hill Area fire prevention now has a comprehensive program with adequate annual funding. The prescription sites on the campus have been identified

and each year they are reviewed and modified to incorporate new techniques and to redistribute the treatment methods (please see the attached Map. The information incorporated into the Draft Hill Area Coordinated Resource Management Program (currently under review by campus committees) summarizes the current status of wildland fire prevention on the Berkeley campus. The Fire Prevention Committee developed a priority system which has guided the University's program:

### Mission

1. Recommend policy and strategies to reduce fire hazards in the wildland/urban interface areas;
2. Act as a liaison for public agencies and citizens to raise issues and recommend methods to be used by the Berkeley campus to reduce risks from fire hazards in the wildland/urban interface areas;
3. Provide the Vice Chancellor with recommendations on appropriate measures and costs to minimize fire hazards in the Hill Area;
4. Verify that the Berkeley campus Hill Area Fire Management Program is implemented and is effective in reducing fire hazard risks; and
5. Review and recommend changes to activities that impact the fire safety of the wildland areas owned by the University that are near the Berkeley central campus.

### Priorities

The priorities were developed based on "values at risk" directed by the Committee: "effective, cost-efficient and ecologically sound adaptive management strategies." The Committee recognized that prevention was required for both "flame fronts" and "spot fires".

**Priority 1:** fuel reduction within a 30 ft. (10 meters) border (defensible space) adjacent to neighboring private properties or structures;

**Priority 2:** fuel reduction within a 30 ft. (10 meters) border (defensible space) of University owned facilities;

**Priority 3:** spot fire risk reduction from fuel on the campus that could potentially ignite neighboring properties, directly or at a distance

### Objectives:

To reduce the threat of wildfire to and from the University.

To use existing knowledge and customize fuel treatments, in this wildland/urban interface where the species diversity is high and uses

vary

To treat prescription sites according to the priorities described above. Each treatment site has a specific management objective.

To recognize that each situation is unique in that the available fuel is usually alive and standing brush and limbs rather than dead and down woody material.

To focus the primary removal options: grazing by goats for lighter fuels on large steep slopes and cutting limbs and branches by hand followed by chipping and spreading the chips and mulch.

To prevent or slow regrowth by applying mulched material or spraying of herbicides are options in areas outside the Ecological Study Area (ESA).

Depending on the site and assistance from local agencies, controlled burning is another option for the removal of larger fuels.

### Budget History

Almost simultaneously to the renewed commitment by the campus to fire prevention was the approval of the campus Long Range Development Plan (LRDP) in 1990, which adopted policies and mitigation measures to ensure the safety of the students, faculty, staff, and facilities at the Berkeley campus, including fire prevention.

#### 1991 -- 1993

When PP-CS and PD&C were assigned the wildland fire prevention program, Business and Administrative Services (BAS) allocated \$35,000, plus \$22,000 residual from the EH&S Department. The total budget for wildland fire prevention work was \$57,000. PEP convened and conducted Committee meetings, created maps and prepared reports for the Committee. PP-CS managed the ongoing goat grazing contract and did a limited amount of fuel reduction work.

#### 1994 -- 1996

The Vice Chancellor for BAS (VC-BAS) obtained some Chancellor's Discretionary Funds with which PP-CS was able to hire student crews and a

manager for their work. The \$35,000 base budget was supplemented with \$52,000 for a total of \$87,000. The campus was able to remove significant amounts of fuel in the areas near the LHS, Haas Clubhouse and Field Station for Behavioral Research with a combination of UC campus student and City of Berkeley high school student crews. The PEP office hired a fuel management consultant to develop prescription treatments for the key areas near values at risk (private properties and campus buildings). The Fire Prevention Committee developed the priority system for the campus and field review of all of the prescription sites on campus through a subcommittee.

### 1997 -- 1999

The Campus Fire Prevention Committee became aware of the need to manage wildland fuel in the **Priority 3** (spot fire potential areas). The Committee felt that the Panoramic Hill area was a top priority site because of the "near miss" of the 1991 Tunnel Fire, and because of the extensive contact with University wildlands. Therefore, when the opportunity to design and develop a proposal for a Hazard Mitigation Grant Program (HGMP) application with the Federal Emergency Management Agency (FEMA), the campus applied for the matching funds in order to obtain significant support to do major fuel removal that the campus budget could not provide. At the same time the Committee recognized the need to do fuel reduction work in Claremont Canyon and staff developed a proposal for that area of the campus as well. Here, the campus had an opportunity to partner with several other concerned agencies with fire prevention responsibilities (City of Oakland and the East Bay Regional Park District). The PEP staff developed a proposal for submission to FEMA as well. In the meantime, the City of Oakland lost its funding for its share of the project match for the FEMA program (the voters declined to continue the Assessment District program). Neither the campus nor the Park District had sufficient funds to proceed without the City of Oakland as a partner in the proposed project in Claremont canyon.

The request for FEMA matching funds was expanded to \$200,000 worth of fuel removal work would yield \$400,000 in actual funding for a major project which could eventually provide a reduction in fire fuels from the City of Berkeley line in lower Panoramic Hill to Grizzly Peak Boulevard at the top of the campus in the City of Oakland. The Vice Chancellor increased the campus fire mitigation budget to \$134,500 annually, to cover the Panoramic Hill portion of the FEMA project matching funds (\$33,000/year for 3 years). The annual treatment prescription work is allocated at \$76,500 and Capital Projects is allocated \$58,000 (including \$24,000 formerly allocated to PEP for planning work) for managing and implementing the FEMA HMGP project on Panoramic Hill. Below is a summary of these budgeting phases for the 1990s:

### Annual Budget Summary

<u>Years</u>	<u>\$</u>
1991 -- 1993	\$57,000
1994 -- 1996	\$87,000
1997 -- 1999	\$134,500

### Overview of the Panoramic Hill Fuel Reduction Project FEMA Hazard Mitigation Grant Program

The primary reasons for the proposed three-year fuel reduction project is to create “defensible space,” to reduce fuel buildup, to improve fire fighting personnel and truck access, and to maintain forest vigor. These objectives have been refined in discussions with fire protection professionals, fuel management experts, urban foresters, and members of the affected public. Much of the proposed treatment area is within the 500 foot Buffer Study Zone as recommended in the Vegetation Management Consortium Fire Hazard Mitigation and Fuel Management Plan supported by the multi-agency Hills Emergency Forum (1995).

By the third year of the proposed project, conversion toward a sustainable vegetation type that is more fire-safe and beneficial to the natural environment will be a goal. The project will create a low flame length (8 feet or less) mosaic for a defensible space on the ridge crest. There is an existing danger posed by the dead and dying trees and a high ignition potential in these interface zones. Temporarily displaced wildlife will adapt to a more diverse oak woodland, coastal sage scrub and perennial grass mosaic. The campus will coordinate with the East Bay Regional Park District to match-up and compliment treatments in Claremont Regional Preserve. The campus would continue to share the use of the Panoramic Hill Fire Trail with the District and assist in developing a helispot as outlined in the 1982 Blue Ribbon Task Force Report.

The proposed project seeks to balance environmental and aesthetic considerations with fuel management needs. For example, it is recognized that the Monterey pine plantations may not survive the infestation of pine pitch canker and bark beetles that are present in the area. The present project

preserves the option to replace pines with native oaks. This will be an ongoing effort by the University.

Preparatory work on the proposed project was begun in the fall of 1998 and the fuel removal will continue through 2001. The campus is committed to maintaining the fuel reduction effort through the annual prescription treatments that are funded through the VC-BAS budget.

The campus expects to gain more than 25 years of benefit from the completion of this project. The work will be inspected each year and additional treatments will be incorporated into the campus yearly budget for the Annual Fire Mitigation Program

Some of the project objectives are:

- Increase fuel management effectiveness
- Improve access for fire protection
- Protect visual resources (near and distant views)
- Improve general forest health by removing dead, dying & diseased trees
- Restore native ecosystems where feasible
- Maintain recreational uses and highlight biological features of interest to the general public and educators
- Protect any habitat elements associated with conifer species including raptor perches

#### Mitigation Monitoring Team

On page 17 of the Mitigated Negative Declaration for the Panoramic Hill Fuel Reduction Project the following commitment is made:

The University will develop an inspection team comprised of concerned citizens, faculty and staff to review project progress and completion of specifically adopted mitigation measures with the City of Oakland and Berkeley Fire Department inspectors and the University contracting foresters.

#### University Staff and Consultants:

Rufus Jones -- PEP -- 643-9310

Jim Horner -- Project Manager -- 642-7535

Dale Sanders -- PEP -- 643-8777

Gene Forsburg or Joe McGuire-- consulting forester, Pacific Meridian Resources

-- 654-6980

Ken Schmitz -- Associate Director, PP-CS -- 642-2394

Local Area Representatives/Experts

Richard White -- resident and faculty member -- 642-0540

Carroll Williams -- resident and forestry professor -- 642-8092

Deborah Rogers -- resident and forester -- 845-9633

David Orth -- Asst. Fire Chief, City of Berkeley -- 644-6665

Camille Rodgers -- Fire Inspector, City of Oakland -- 238-7392

Bob Berninzoni -- LBNL Grounds Supervisor -- 486-5576

Mission

Review Mitigation Measures: 10 Measures in the Migration Monitoring Plan

Committee to meet and review progress quarterly or as appropriate

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