

SAVE STRAWBERRY CANYON
P.O. BOX 1234
BERKELEY, CALIFORNIA 94701

Save Strawberry Canyon is a citizens' group that seeks to preserve and protect the watershed lands and cultural landscape of Strawberry Canyon. Save Strawberry Canyon was formed out of the urgent need to take action in response to the threat of intrusive, inappropriate development on the Canyon lands.

Strawberry Canyon, opposite the Golden Gate, is a unique link to the East Bay Regional Park District lands and, by its streams and views, to San Francisco Bay. The Canyon itself with its streamside vegetation, oak-bay woodlands, grasslands, and surrounding slopes, is a rich repository of wildlife directly adjacent to the dense urban populations of the UC Berkeley Campus and the cities of Berkeley and Oakland.

Save Strawberry Canyon seeks to inform the public about the impacts of proposed developments, to encourage location of such developments to more suitable sites, and to promote better public access to the beautiful Canyon with its wildlife and scenic resources. Mission Statement

July 9, 2010

Russell Gould, Chairman
Board of Regents
University of California
% Office of the Secretary and Chief of Staff
111 Franklin Street, 12th Floor
Oakland, California 94607
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Leslie Tang Schilling, Chair
Committee on Grounds and Buildings
Board of Regents
University of California
%Office of the Secretary and Chief of Staff
111 Franklin Street, 12th Floor
Oakland, California 94607

Re: GB4 Certification of Environmental Impact Report (EIR) and Approval of Design of the Seismic Life Safety Modernization and Replacement of General Purpose Laboratory Building, Phase 2 (Seismic Phase 2) Project, Lawrence Berkeley National Laboratory (LBNL)

Dear Mr. Gould, Ms. Schilling, and Members of the Board of Regents:

Save Strawberry Canyon (SSC) urges the Board of Regents not to certify the Environmental Impact Report (EIR) for LBNL's proposed Seismic Phase 2 Project. The EIR fails to consider fully the impacts to the natural environment, the risks to the health and safety of the community, and the use of resources without degradation and unintended consequences.

SSC, a non-profit corporation representing some 300 members, remains concerned that LBNL's Long Range Development Plan (LRDP) to build an alternative and sustainable energy research campus on the hillsides above the University of California Campus may have significant detrimental effects upon the environment. While it is laudable that the Seismic Phase 2 Project proposes to replace unused and unsafe buildings, both the LRDP and the Seismic Phase 2 Project overlook the obvious fact that there are other safer, underutilized industrial locations upon which to develop, such as the Richmond Field Station. The once-in-a-lifetime monies committed to the Seismic Phase 2 Project, whether from the American Recovery and Investment Act (ARA), that is public investment, from diminishing University resources, and/or from the financial support of private corporations, all, merit wise-use expenditure to create the most productive opportunity for research.

We are concerned by the EIR's continuing lack of acknowledgement and consideration of the cumulative impacts. Past LBNL projects as well as the ongoing and projected future University projects within the hill area are of serious consequence. The effects include soil, water and air

contamination, traffic congestion, damage to aesthetic and natural values, and strain on scarce fire and disaster services.

In particular, the Regents must know of the growing concern over the question of the stability of the hillsides and the insufficient information for review. Accordingly, SSC makes the following comments:

- 1) The FEIR is missing the AKA 2009 and 2010 geotechnical reports. These were promised in the DEIR and in the Lab's responses to comments on the DEIR appended to the FEIR (pp. 5-259 and 5-265 among others). These were not provided during the CEQA review process. Such geotechnical reports are essential for assessing the Project.
- 2) The missing Figures 1 & 2 in the FEIR, provided in the "Notice of Errata" when asked for, are not new but include a map showing the two landslides beneath the Hazardous Waste Handling Facility (Buildings 85 and 85A) and a section of the hill under the General Purpose Laboratory (Building 25) in the Old Town area showing unstable Moraga volcanics over Orinda formation.
- 3) Responses in the DEIR "Master Responses" to the video "The Fault: Quakes, Slides, & the Lawrence Berkeley Lab," letters, and comments, indicate either a willful misunderstanding or misreading of a sketch section of the caldera. Geotechnical reports submitted with the LRDP and with EIRs for individual Lab buildings reveal all of the features that geologists associate with such a caldera: lobate deposits of andesite and blocks of basalt, both volcanic rocks; inclusions of other volcanics; mudstones and bedded water-tables, reservoirs of water at different levels rather than consistent aquifers, that filled up the magma chamber. ¹
- 4) Welded tuff (ash) defines the edge of the caldera that has been identified with precision before it became overgrown or built upon. The part of the caldera east of the Wildcat Fault lies to the south in Sibley Volcanic Park, separated from the LBNL caldera by 4 miles in 10 million years. (See the Hayward fault two-foot offset of the two halves of Memorial Stadiums over a mere 90 years.)

¹ Dunn and Goodman, Oct, 1984. "Hill Area Dewatering and Stabilization Studies"

"This synclinal structure is locally complicated by faulting and the presence of remnants of the volcanic vents through which the Moraga rocks were extruded. Rocks of the campus hill area represent part of a vent complex that has been truncated and displaced along the Wildcat fault and lack the well-developed synclinal structure of the rocks east of the Wildcat fault. The remainder of the vent complex is located several miles to the southeast in Robert Sibley Volcanic Regional Preserve (formerly Round Top Regional Park). The upper campus hill area represents a portion of this complex, juxtaposed between Hayward, Wildcat and Strawberry Canyon faults, with complex internal structure resulting from the superposition of uplift and folding on the volcanic vents and associated volcanic and sedimentary rocks."

5) How will LBNL stabilize the Hazardous Waste Handling Facility (85 and 85A), so dangerous that it cannot be moved or disturbed during retrofitting? By drilling piers “under the overhang” (that is, outside the building) to “stop the landslide”? Some of the twenty-one “40’ to 50’ piers” are evidently intended to reach beyond the perched water tables that range from 11’ to 40’ below surface. But what do the engineers expect to find under all this mudflow and water? Imagine trying to anchor Jello with toothpicks on a tilted plate. (These mitigating measures are described in the Environmental Assessment for DOE, June 28, 2010.)

6) Buildings 85 and 85A are located in the East Canyon, at the other end of the site from the fire station. Flammable brush surrounds the site. No plan to safeguard these buildings and their dangerous contents has been reviewed. Is the plan simply to evacuate the site at the smell of smoke? Do any fire crews aside from the one at the Lab know which buildings need to be safeguarded, wetted down, or quickly emptied of their contents? The area is subject to wildfires.

7) The costs of dewatering the hill and repairing slopes, roads, and buildings (20 slides in 12 years—1964-1976, now up to slide no. 40, according to the map published in the EA) indicate that the site is the most expensive and dangerous place to build. Orinda Formation as described in all the borings is composed of claystone and siltstone, which are different forms of mudstone. “Mudstones give rise to many problems in civil engineering because they are weak and shrink or swell on being dried or wetted. Muds are very reactive to physical disturbances of differential loadings, and they slump or flow easily when subjected to stress.” (*The Oxford Companion to the Earth*, 2000, p. 715.) Buildings, as stated in at least one geo-tech report, destabilize these mudstones, so misleadingly labeled “bedrock.”

8) The caldera, loaded with buildings, presses against the cretaceous shale and sandstone above the dormitories, private residences and campus properties below. A dip-and-strike measurement taken by Emeritus Professor Garniss Curtis on June 6, 2010 above Bowles Hall indicated a westward dip of around 40 degrees. This is in the hill area topped by some of the newer Lab buildings, a hill which has slid in the recent past and has had to be reinforced with a web of concrete. *Buildings on the LBNL site endanger not only Lab personnel but also those below in the event of the expected earthquake.*

9) Planners are undecided about the placement of the GPL. As the composition of LBNL grounds varies every few feet, a new set of reports will be necessary if the building is differently sited.

SSC appreciates the recommendation to the Regents that action not be taken to give final approval of the General Purpose Laboratory (GPL) site at Building 25, pending completion of the National Environmental Policy Act (NEPA) review. SSC expects that the inadequacies of the EIR will be answered in an Environmental Impact Statement (EIS) with a presentation of serious alternative site analysis.

It is too soon to certify the EIR or to proceed with any aspect of the Seismic Phase 2 Project given the many unresolved concerns, including the question of harmful impacts of contaminated water flow during demolition and construction. SSC has recently sought the engagement of the State and Regional Water Quality Control Boards to pose the possibility that LBNL may have acted prematurely by requesting demolition and construction permits. (Please see enclosed letter, SSC to San Francisco Regional Water Quality Control Board, July 2, 2010)

SSC believes that the Regents will benefit if they pause to request further environmental review for the proposed Seismic Phase 2 Project. In the fall of 2008 the Regents decertified LBNL's proposed Helios Energy Research Facility (Helios) due to discussions initiated by the public regarding the stability of LBNL's proposed hillside site in Strawberry Canyon. (Please see the three enclosed letters.)

Thank you for your serious attention given to these matters.

Sincerely,

Georgia Wright, for
Save Strawberry Canyon

Encl:

1. Letter, SSC to San Francisco Bay Regional Water Quality Control Board, July 2, 2010
2. Letter, Garniss Curtis to Anne Shaw (Regents), May 11, 2008
3. Transcribed from original, letter, A. Paul Alivisatos to Professor Emeritus Curtis, May 5, 2020
4. Letter, Garniss Curtis to Director Alivisatos, June 12, 2010, including 2 figures

Cc:

Mark G. Yudof, President, University of California
Paul Alivisatos, Director, LBNL