

The Volcano Beneath

Georgia Wright, Berkeley Daily Planet, 1-28-10

Most people do not know that the Lawrence Berkeley National Laboratory is almost entirely sited on a caldera, a collapsed volcano. Below this caldera there is the Hayward Fault, which cuts through Memorial Stadium and across the bottom of the hills. The Hayward Fault is due for a magnitude 6.5 to 7.0 earthquake anytime within the next 30 years. Still, LBNL plans to build up to a million square feet of research facilities on its steep and unstable hills above the city and UC campus.

The Save Strawberry Canyon organization has successfully challenged the lab's building plans in court on both the state and federal level, but remains concerned that three new construction projects are now planned for the Blackberry Canyon area, within the caldera, including the BELLA laser accelerator. In addition, the controversial Computational Research and Theory facility (CRT) is planned to be built below the edge of the caldera, marked by the Cyclotron.

A new YouTube video explains the caldera phenomena. It makes a strong case for preventing any new construction on the LBNL sites within both the Blackberry and Strawberry canyons. Such buildings would be unstable and could further endanger the lives and structures below them.

Years ago, Professor Emeritus of Geology Garniss Curtis and civil engineer Ben Lennert did field testing throughout the East Bay. They located the perimeter of the old volcano, whose constituent rocks, mud, and water press downhill on the strata of sandstone and shale that have been pushed up to a 30-degree angle by the Hayward Fault, moving up one centimeter a year. The plates along the Hayward Fault have moved north on the east and south on the west at the same rate. The stadium, constructed in 1923, is evidence of this offset, the crack on the south only partially disguised today by a huge image of a football player, but visible above it. The whole length of the stadium sits astride the fault.

When the predicted earthquake occurs, buildings and hills will most certainly slide, and the material squeezed up by the plates will cause even more damage. Researchers have said that Indian Rock and Founders' Rock were thrown up in a past event. Professor Curtis and Dr. Ignacio Chapela, associate professor of environmental science, explain in the video that the university's building plans, both at LBNL and at the stadium, create an unnecessary risk for the campus and the citizens of Berkeley.

For LBNL there are viable alternative sites. The university does own 50 acres of underutilized space at the Richmond Field Station with beautiful bay views, only 10 minutes farther from campus than the hill site.

(It is ironic that the university recently engineered a state bill, with the help of the city of Berkeley, to exempt the stadium from the Alquist-Priolo Earthquake Safety Zoning Act.)

The regents are in charge of lives as well as buildings and research. The video, entitled The Fault, Quakes, Slides, and the Lawrence Berkeley Lab, contributes new information that should give everyone as well as the regents serious pause.

The YouTube video featuring Professors Curtis and Chapela can be found at www.youtube.com/watch?v=8FOMckAHpes. More information is on the Save Strawberry Canyon website, www.savestrawberrycanyon.org.