

SAVE STRAWBERRY CANYON

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Mr. Kim Abbott
Department of Energy, Office of Science
Lawrence Berkeley National Laboratory
1 Cyclotron Road
Berkeley, California 94720

Sent via surface mail and letter via e-mail

Re: Draft Environmental Assessment (DEA) for Computational Research and Theory Facility Project (CRT) at Lawrence Berkeley National Laboratory (LBNL), Request for Environmental Impact Statement (EIS)

Dear Mr. Abbott:

Save Strawberry Canyon (SSC) appreciates that the CRT project proposal is subject to environmental review under the National Environmental Policy Act (NEPA). While the DEA establishes that CRT is a major federal action, by definition it is a limited presentation of impacts upon natural resources, life and safety, and the possibilities for practicable alternatives. Most crucially, the DEA's conclusion that the "Proposed Action" is of only "minor impact" flies in the face of reality. Contrary to claims in the DEA, CRT has the potential to "...significantly affect the quality of the human environment." The DEA is both insufficient and misleading. The CRT project proposal must have a full and fair discussion of impacts and alternatives; in short an EIS is warranted for proper NEPA review.

SSC, a non-profit 501(c) 3 organization representing a membership of some 300 citizens, was organized in part "...out of the urgent need to take action in response to the threat of intrusive, inappropriate development on the Canyon lands" (SSC mission statement). Since its inception SSC has challenged the suitability of the proposed CRT site (see attached SSC CRT DEIR comments, dated January 2008), seeking a serious analysis of viable off-site alternatives. An EIS process that provides for reasonable discussion of viable alternatives is urgently needed — and there are great, environmentally suitable, socio-economically positive, fiscally responsible alternatives.

The proposed CRT site is notable for its stretch of natural terrain, rising above the top of Hearst Avenue and the curve of Cyclotron Road at the LBNL security entrance. The steep sloping hillside is typical of the Berkeley-Oakland landscapes, defined by seasonal grasses and a thin spread of mature eucalyptus trees. To its south the eucalyptus trees give way to the native oaks within the *arroyo* of Cafeteria Creek. For over 80 years the public has embraced such terrain, which is a repeating and continuous landscape across the various ridges and valleys within the East Bay Regional Parks (as envisioned by the Olmsted Brothers, who included this area). In large part the membership of Save Strawberry Canyon is made up of citizens who are eager to preserve and protect this special character still defining both the LBNL Campus and the University's Hill Campus as they are linked to the Regional Parks.

If the natural landscape were to be replaced by the construction of CRT, a visual resource of significance would be lost for both LBNL and the public at large. This natural setting connecting the landscape to one of the prominent creeks in the Strawberry Creek watershed and to Strawberry Canyon beyond, serves as an important buffer almost hiding the LBNL institutional and industrial

complex from view. A significant connecting biological resource would be lost as well. The cumulative effect of expanding LBNL's high-tech presence (replacing eucalyptus with constant noise from cooling towers, lights, user growth, traffic and risk) into this location cannot be mitigated. Less damaging alternatives must be analyzed.

In 2008 the CRT EIR comments were inclusive of concerns regarding visual and aesthetic resources, land use and planning, biological resources, and threatened and endangered species. CRT is controversial. Such previously expressed concerns should have been an indication to DOE that this federal project does not warrant "fast-track" treatment, but rather a full assessment of potential harm and loss of irreplaceable resources.

It is relevant to DOE and should be already known to DOE that in the spring of 2008 Professor Emeritus Garniss Curtis wrote to the Regents of the University of California warning of any further construction in both Strawberry and Blackberry Canyons (see letter attached). Dr. Curtis's information regarding unstable soils was revelatory and did result in the Regents decertifying the EIR for the LBNL's Helios Energy Research Facility project proposed for construction on an unstable site in Strawberry Canyon "due to geotechnical issues." The problem of "colluvial material underneath the building footprint" resulted in the decertification of the EIR for Helios (President's letter to Regents, November 13, 2008). The fragility and incline of the hill beneath the proposed CRT close to the Hayward Fault is a concern of even greater significance.

This most significant area of concern is presented in the DEA on page 4.0-5 under the heading "Issues Determined to Warrant Further Consideration" and is followed by 4.2, "Geology and Soils."

The inadequate geotechnical reports that follow in the DEA are both out-of-date and were prepared for a building with half the current footprint, presumably for the previous CRT design proposal. Many more borings and trenches must be made. New borings and trenches, as well as those already reported, should make it obvious that **NO BUILDING SHOULD BE ERECTED ON THIS SITE**. The idea of placing four supercomputers and 300 people at risk on a 2:1 (2 feet horizontal for 1 foot drop) slope only 400 feet from the Hayward Fault is unconscionable. A responsible EIS must fully weigh the reality of the existing site conditions.

Please take into consideration the following matters¹ in the DEA that indicate cause for true concern and expanded analysis:

- The Kleinfelder Report on the fault investigation (2006) that was published in the appendices for the previous 6-story CRT design was followed by the WLA peer review. There are troubling contradictions here. WLA complains about inadequate discussion of the shear zones and clay shear seams, their orientation and their use in interpreting landslide versus faulting. Kleinfelder comments that more should be done but that the trenches did not point to faulting. WLA, however, writes that Kleinfelder should have considered that the landslides may have covered evidence of faulting. Kleinfelder questions this but in further reports directs that the material of the landslide be removed. Presumably this might reveal faults.
- On WLA page 4, in a discussion of the report p. 10 (a page rewritten, it seems), WLA comments that Kleinfelder wrote that no shear or offsets of the layers were observed in the trenches. Kleinfelder: "While we agree grammatically with the reviewer's statement, the intent of the phrase was to imply *shears or offset of these layers due to active faulting*" (our italics). This is surprising as at the end of the report Kleinfelder claims that they and WLA agree

there is “no evidence for active faulting to cross the footprint of the CRT building site...”

- A stranger contradiction occurs with the map published at the end of the Kleinfelder’s geotech report. Two probes made by the California Geological Survey are marked as indicating faults around or under the footprint of the CRT.
- Problems with the Kleinfelder reports, starting with the map from the fault investigation, which marks and identifies borings, trenches, pits, and other important material:
 - 1) Kleinfelder does not discuss Fugro’s seismic refraction study, shown on the map. What did it reveal of faults?
 - 2) GeoResource borings are included but not cited on the map, so they are useless
 - 3) Kleinfelder’s own 2006 Blackberry Gate borings are on the map but not illustrated nor mentioned in the reports. These were close to or under the new footprint
 - 4) For two Fugro trenches, close to the new building footprint, there are no images or analyses.
- On the other hand Fugro borings, in the northern part of the new footprint, are quite different from Kleinfelder’s. Fugro B-1 and B-2 show clay to 10’ and to 15’ then sandstone to the bottoms of both borings (27’). Kleinfelder No. 1 has clay to 7’, siltstone to 18’, then shale. KB-3 has siltstone to 9’, sandstone to 12’, siltstone to 27’ and then shale. (KB-2 struck a concrete conduit.)
- Kleinfelder’s proposed design of the previous CRT facility, in section, shows a building with no interior piers or few “for maximum flexibility.” That may mean movement during a seismic event. Moffitt Library, built without interior walls, had to be reinforced at the corners, although whether that will keep the loaded floors from pancaking remains to be seen.
- Kleinfelder’s engineers do not seem to have read their own reports. The piers should extend into “bedrock.” Most depicted in the section are less than 10’ deep, yet in another part of the report, the colluvium, the fill above the landslide, landslide and the clay slip seam beneath it must be removed and replaced with a better quality fill, about 10’ in depth. Thus the piers will not reach the siltstone (which is expansionary, at any rate!).

The DEA also reveals that the plan for construction preparation for the CRT entails removal of some 30,000 cubic yards of earth (to include the old landslide and the clay slip seam), then replacing that material with the same or greater amount of fill, and then compacting all of that, before building retaining walls. Aside from the questions of stability, the construction noise is surely not calculated in your traffic study. At 10 to 15 cubic yards per truck, 60,000 cubic yards, that is between 6,000 and 4,000 round trips. And 85 decibels of noise? All that bone-jarring compaction? All those nasty truck-in-reverse beeps? And, what about resultant emissions? These damaging impacts need to be disclosed and seriously analyzed.

The plan for stabilizing the slope and constructing the piers would probably cost as much as the building itself, risible if it weren’t close to criminal! And for what? The view? For post-docs who do not want to travel to Richmond?

Finally, it must be pointed out that the path of the gas main servicing LBNL passes through the proposed CRT site. This information was revealed in the EIR, but not presented in the DEA. Recent events in the Bay Area would seem to mandate that DOE discuss fully the operation and

routing of the gas main. The most recent disclosure regarding the explosion of the main in San Bruno tied its explosion to a sudden shock of an electrical outage. This fact is cause for further questions and concern.

Thank you for your attention to these serious matters. SSC believes it would be deleterious if DOE were to proceed with the proposed CRT project without proper NEPA review by undertaking an EIS.

Sincerely,

Lesley Emmington Jones, for
Save Strawberry Canyon

Attachments:

1. Save Strawberry Canyon comment letter for CRT DEIR to Jeff Philliber, January 4, 2008
2. CD with attachments for Save Strawberry Canyon comment letter for CRT DEIR to Jeff Philliber, January 4, 2008
3. Garniss Curtis e-mail letter to Anne Shaw, Secretary of the Regents, May 11, 2008

¹ Note: Geotechnical comment furnished by Georgia S. Wright, Phd