

Contact Information:
Email: planning@lbl.gov

Scoping Meeting

August 8, 2007

Notice of Preparation
Draft Environmental Impact Reports
for the
Helios Energy Research Facility and the
Computational Research and Theory Facility

Lawrence Berkeley National Laboratory

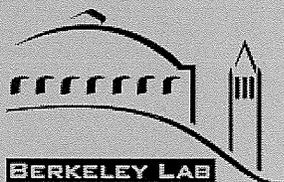
Comments:

I encourage you all to be somewhat familiar with some of the literature that has been published as a result of the dire consequences of the Green Revolution and be familiar w/some of the ecological devastation ~~done~~ done under our current (and past) market paradigms. Pls think *LONG RANGE*

Name: Nathan Murthy Date: _____

Address: _____

Phone No.: _____ Email: _____



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Email: planning@lbl.gov

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Computational Research and Theory Facility

Lawrence Berkeley National Laboratory

Comments:

DO NOT BUILD THE NEW FACILITIES
ABOVE UC CAMPUS. DO NOT SIGN A
DEAL WITH BRITISH PETROLEUM. UCB IS
A PUBLIC UNIVERSITY, ~~NOT A SLAVE TO~~
~~NOT A SLAVE TO~~ ~~NOT A SLAVE TO~~ ~~NOT A SLAVE TO~~
~~NOT A SLAVE TO~~ CORPORATE INTERESTS. STOP THE BP DEAL.

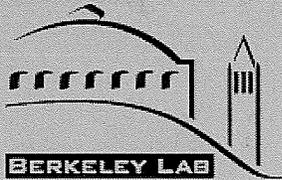
Name: KINGMAN LIM

Date: AUG 8 07

Address: 2147 PARKER ST (DO NOT SEND JUNKMAIL)

Phone No.: 510 549 0337

Email: /



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Email: planning@lbl.gov

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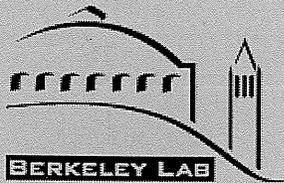
Comments:

BIOFUEL PRODUCTION HAS RESULTED IN.
~~SEVERE~~ RAPID DEFORESTATION, POLLUTION,
AND RESOURCE CONSUMPTION IN INDONESIA
AND SOUTH AMERICA. FIND ANOTHER
WAY TO REDUCE FOSSIL FUEL CONSUMPTION.

Name: KINGMAN LIM Date: AUG 08 07

Address: 2147 PARKER ST (DO NOT SEND JUNKMAN)

Phone No.: 510 549 0337 Email: _____



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Comments:

Concerns: in the cultural impacts of EIR pls take into ^{account} the worldwide
~~A precedent~~ you are creating under the habits of western ^{philosophy} (viz, that
technological development directly correlates w/ ^{human} peace) • "Long Range" considerations.
Please be familiar w/ the Novartis External Review in order to understand the

cultural impacts of reducing academic freedom. Please take into consideration the potential
material impacts of nanotech, GMO, et al on local living systems and in a Global context,

Name: _____

→ Nathan Murthy

Date: _____

Address: _____

→ [2551 Benvenue Ave]

→ 8/8/07

Phone No.: _____

713. 884. 7110

Email: _____

n-murthy@berkeley.edu

the impacts
on the
global
biosphere.

August 23, 2007

Mr. Jeff Philliber
Environmental Planning Coordinator
Lawrence Berkeley National Laboratory,
One Cyclotron Road, MS 90J-0120
Berkeley, CA, 94720

Dear Mr. Philliber:

Comments regarding Draft EIRs for the
Helios Energy Research Facility and Computational Research and Theory Facility Projects

Though you have received my verbal comments during the Public Scoping Meeting on Wednesday, August 8, 2007, I would like to again state that my concerns regard safety and environmental issues. Within the scope of the proposed EIR I am not judging the merits of LBNL, but rather the location for the expanded building at this fragile location adjacent to a dense population center.

As I am concerned about LBNL's current and cumulative impacts in respects to human and ecological health and safety, I ask that the draft EIRs include the list of the reports have been done to date regarding all building that has occurred at LBNL. I also ask that a thorough analysis of the related impacts caused by current and intended building on this site be included. If a thorough analysis does not exist, then I ask that the draft EIRs for the two new projects be postponed until the appropriate contributory reports are made.

I ask that the status/quality of the land at LBNL be thoroughly addressed. Related questions include: Has the land become more or less degraded? Does LBNL landuse and maintenance make it more or less prone to factors including severities of landslides and decrease/increase of both vegetation and the water table? How could the area be maintained? How can it be improved? Can the area be made less vulnerable to landslides and other degradations? What is the spectrum of effects/consequences caused by current and potential activities including levels of earthquakes? How could any of the above activities/events impact the surrounding and land? What toxins and emissions have been or might be released? What toxins/pollutions are currently stored at LBNL? What are the evacuation procedures for LBNL personnel? What is the analysis/evaluation of emergency evacuation procedures?

I ask that the draft EIRs include alternative sites for the new building facilities. Related questions include: What are the alternative sites for the proposed new building facilities? What is the benefits/detriments for building at these alternative sites? What are the increased/decreased impacts &/or effects to public and ecological health at these sites? How do the environmental impacts of these alternative sites compare to those at the LBNL site.?

Sincerely,


Gianna Ranuzzi
2917 Lorina Street
Berkeley, CA 94705

23 AUGUST 2007

JEFF PHILLIBER
LAWRENCE BERKELEY LAB
1 CYCLOTRON ROAD MS: 90J0120
BERKELEY CA 94720

Comments regarding the Helios Energy Research Facility:

IN GENERAL I THINK THAT WE PEOPLE OF AMERICA HAVE BEEN TOO QUICK TO SOLVE OUR PROBLEMS WITH NEW TECHNOLOGY. SO OFTEN OUR SOLUTION TO ONE PROBLEM HAS LED EVENTUALLY TO OTHER PROBLEMS, OFTEN MORE SERIOUS THAN THE ORIGINAL.

I BELIEVE THAT IN THIS COUNTRY WE ARE LIVING BEYOND THE EARTH'S CAPACITY TO PROVIDE. SO INSTEAD OF SEARCHING FOR MORE WAYS TO SUSTAIN OUR PRESENT LIFESTYLES, WE NEED TO TAKE DEEP BREATHS AND DISCOVER WAYS TO LIVE ON THE PLANET THAT ARE LESS DESTRUCTIVE.

HELIOS, IT SEEMS, WANTS TO PUSH FORWARD WITH RESEARCH THAT COULD POTENTIALLY LEAD TO SERIOUSLY DEVASTATING RESULTS.

ADD TO THIS THE PLAN TO BUILD EXTENSIVE FACILITIES UP STRAWBERRY CANYON: THE PRESENT LAWRENCE BERKELEY NATIONAL LABORATORY IS BUILT PRACTICALLY ON TOP OF THE HAYWARD FAULT; THE AREA IS STEEP AND PRONE TO WILDFIRES, HEAVILY FORESTED AT PRESENT EXCEPT FOR LAB CONSTRUCTIONS WHICH HAVE LEFT, ON THE OTHER HAND, HARDSCAPE WITH SURFACE RUN-OFF ISSUES. THE LAND IS STEEP AND SUBJECT TO LANDSLIDES AND SOIL CREEP; IT IS FISSURED AND CRACKED IN THE BED ROCK. WATER WITH CONTAMINATES CAN EASILY ENTER THE GROUND WATER.

ANY FLUIDS WHICH FLOW DOWN THAT SLOPE WILL GO INTO STRAWBERRY CREEK AND THEN INTO THE ENVIRONMENT VIA THE WILDLIFE, AND EVENTUALLY THE WATERS WILL BECOME PART OF THE BAY AND OCEAN. ON A DAILY BASIS THIS WOULD BE BAD; IN EVENT OF AN ACCIDENT, EARTHQUAKE OR FIRE, IT WOULD BE DEVASTATING.

I ALSO BELIEVE THAT THE UNIVERSITY OF CALIFORNIA HAS BEEN EXPANDING MUCH TOO FREELY BEYOND ITS BORDERS HERE IN BERKELEY. FROM BEING OUR GOOD NEIGHBOR OFFERING CULTURAL AND INTELLECTUAL OPPORTUNITIES, IT HAS BECOME THE 900 LB. GORILLA IN THE LIVING ROOM, ADVERSELY AFFECTING THE QUALITY OF LIFE OF THE RESIDENTS. I AM ALSO UNPLEASANTLY SURPRISED AT THE MISINFORMATION AND SECRECY WHICH HAS ACCOMPANIED YOUR NEW PROPOSALS.

AS FAR AS GROWING PLANTS TO PROVIDE FUEL FOR OUR MODERN EXTRAVAGANCES, THIS SEEMS TO ME TO BE A SLAP IN THE FACE TO THE OTHER PEOPLES OF THE GLOBE WHO ARE TRYING TO EKE OUT LIVINGS FROM POOR, ROCKY, STEEP SOILS WORLD WIDE. SOIL, GOOD SOIL ESPECIALLY, IS IN QUITE SHORT SUPPLY. CROP ROTATION, FALLOWING, TERRACING ARE TECHNIQUES USED TO SUPPLY FOOD, BUT NOT ALL THE SOILS ON EARTH CAN SUPPLY A GREEDY AMERICA WITH FUELS FOR OUR EVER-INCREASING DEMANDS.

Barbara Robben

Barbara Robben
1964 El Dorado
Berkeley, CA 94707

510-524-2383



August 23, 2007

Jeff Philliber, Coordinator
Lawrence Berkeley National Laboratory
Environmental Planning Group
One Cyclotron Road, MS 90J0120
Berkeley, CA 94720

Re: Notice of Preparation of a Draft Environmental Impact Report for the
Computational Research and Theory Facility, Lawrence Berkeley National
Laboratory

Dear Mr. Philliber:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Computational Research and Theory (CRT) Facility located at the Lawrence Berkeley National Laboratory (LBNL) in the Oakland/Berkeley Hills. EBMUD has the following comments.

WATER SERVICE

As stated in the NOP, EBMUD's Shasta and Berkeley View Pressure Zones currently serve the existing LBNL facilities. As noted on page 73 of the NOP, EBMUD owns and operates a main in Cyclotron Road in the vicinity of the proposed CRT Facility which could serve the proposed development. This main is located in EBMUD's Summit Pressure Zone, with a service elevation between 500 and 700 feet. A main extension, at the project sponsor's expense, may be required to serve the proposed development depending on EBMUD's metering requirements and fire flow requirements set by the local fire department. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing additional water service to the existing parcels. Engineering and installation of water services requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

WATER RECYCLING

In 2004, EBMUD completed a study to determine the feasibility of supplying recycled water for irrigation purposes at the University of California at Berkeley (UC) through a Satellite Recycled Water Treatment Plant (WTP). Based on results of this study,

EBMUD determined that it is not feasible at this time to provide recycled water to UC Berkeley, including the Lawrence Berkeley National Laboratory area, through either a Satellite Recycled WTP or the East Bayshore Recycled Water Project in the near future.

WASTEWATER

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Environmental Services Division. However, the City of Berkeley's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. The developer for this project needs to confirm with the City of Berkeley Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. As stated on page 74 of the Initial Study, the LBNL currently contributes to subbasins that exceed capacity during the wet season. The projected peak wet weather wastewater flows from the proposed CRT Facility project needs to be determined to assess the available capacity within the subbasin and confirmation included in the environmental documentation. Suggested language to include in the environmental documentation is as follows: "The City of Berkeley Public Works Department has confirmed that there is available wastewater capacity within Subbasin (*insert subbasin number here*) that is reserved for this project."

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD would request that the UC include requirements for the project to incorporate WaterSmart technology and design standards in the landscape and building design. At a minimum the landscape design should be designed to a water budget as described in the State Model Water Efficient Landscape Ordinance in Division 2, Title 23, California Code of Regulations, Chapter 2.7, sections 490 through 495. Provisions should be established to monitor the water budget for compliance after project

Jeff Philliber, Coordinator

August 23, 2007

Page 3

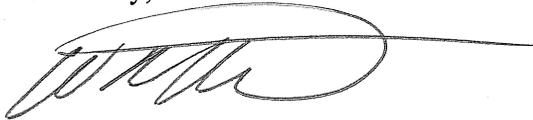
completion. EBMUD will review applications for new standard water services and applications for expanded service for compliance with EBMUD Water Service Regulation Section 31, Water Efficiency Requirements (see enclosure). Although the NOP indicates that no new or expanded water service connections would be needed to serve the project, implementation of Section 31 water efficiency requirements for nonresidential service is recommended. EBMUD staff would appreciate the opportunity to meet with applicant's staff. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

CUMULATIVE IMPACTS

EBMUD is in the process of planning a new storage tank located at the LBNL/UC Campus border. EBMUD anticipates completing a project specific EIR by mid-2008. Construction of the tank and associated pipeline would occur in fall 2009 through fall 2011. As noted on page 16 of the NOP, construction of the CRT Facility is anticipated for mid-2008 through winter 2010. Thus, construction of the EBMUD and LBNL projects may overlap, and can result in cumulative impacts to the surrounding Berkeley community. Please include a reference to this planned EBMUD improvement to the water distribution system that serves UC Berkeley and the surrounding campus area.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, at (510) 287-1365.

Sincerely,



William R. Kirkpatrick
Manager of Water Distribution Planning Division

WRK:JAJ:djr
sb07_227.doc

Enclosure



SECTION 31

WATER EFFICIENCY REQUIREMENTS

These regulations identify the types of water efficiency requirements for water service and the procedure for notification to Applicants that water efficiency measures are required.

A. DETERMINATION OF FEASIBILITY OF WATER EFFICIENCY MEASURES

The District will review applications for new standard services and determine the applicability of, and compliance with, water-efficiency requirements. Applicants for expanded service may be required to retrofit existing water service facilities or uses to comply with these requirements. Applicant shall maintain design documents and construction and installation records and furnish a copy of said documents and records to the District upon request. The District may inspect the installation of water efficiency measures to verify that the items are installed and performing to the required water use levels. The Applicant or their representative may be present during any District inspection.

B. WATER EFFICIENCY REQUIREMENTS FOR NEW DEVELOPMENT OR EXPANDED SERVICE

Water service shall not be furnished to any Applicant for new or expanded service unless all the applicable water-efficiency measures hereinafter described in this Section 31 are installed at Applicant expense.

C. RESIDENTIAL SERVICE

1. Indoor Water Use (All Applicants)

- a. Toilets shall be high-efficiency or dual flush models rated and (third party) tested at a maximum average flush volume of 1.28 gallons per flush (gpf) or a maximum of 1.1 and 1.6 gpf for a half and full flush respectively, and be certified as passing a 350 gram or higher flush test as established by the Uniform North American Requirements or other District-accepted third party testing entity. No flush or conversion devices of any other kind shall be accepted.
- b. Showerheads shall be individually plumbed and have a maximum rated flow of 2.5 gallons per minute or less and be limited to one showerhead per shower stall of 2,500 sq. inches in area or less. Installation of flow restrictors in existing showerheads does not satisfy this requirement.
- c. Lavatory faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 1.5 gallons per minute or less.
- d. Kitchen faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 2.2 gallons per minute or less.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

- e. Clothes washing machines shall be front loading horizontal axis or top loading models with both: (1) a water factor rating of 7.5; and (2) a maximum average water use of 7.5 gallons per cubic foot of laundry or less.

2. Outdoor Water Use

The provisions herein shall apply to all Applicants with more than two residential units.

a. Landscaping.

- i. Plans shall be submitted to the District for review and approval by District for compliance with these Regulations prior to planting. Landscaping shall be designed to be irrigated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area. Applicants with less than three residential units shall be required to complete a check list in lieu of a detailed landscaping plan.
- ii. Turf areas shall be limited to no more than 25% of the total irrigated area. Exceptions may be granted when using drought tolerant grasses. Turf is not permitted in areas or medians less than eight feet in width.
- iii. Non-turf areas. At least 80% of the plant selection shall be native or climate-appropriate low water use species and require minimal water once established. Up to 20% of the plants may be of a non-drought tolerant variety as long as they are appropriately grouped together and irrigated separately and efficiently.

b. Irrigation.

- i. Irrigation Efficiency. Irrigation systems shall be designed and installed to avoid overspray and runoff and be operated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area.
- ii. Automatic, self-adjusting irrigation controllers shall be required on all irrigation systems and shall automatically activate and deactivate the irrigation system based on changes in the weather. All automatic irrigation systems shall be equipped with a moisture sensor and/or rain sensor shutoffs. Applicants with less than three residential units are not required to install weather-based controllers.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

- iii. Sprinklers and spray heads shall not be permitted in areas less than eight feet wide. All sprinklers shall have matched precipitation rates within each control valve and circuit. Landscape design best practices shall include distribution uniformity, head-to-head spacing and setbacks from walkways and pavement.
- iv. Valves and circuits shall be separated (individual hydrozones) based on plant material and water use.
- v. Dedicated Irrigation Meter shall be required for irrigated landscaping of 5,000 square feet or more.

- c. Swimming Pools and Spas.
 - i. Covers shall be required for all pool and spa water features.

D. NONRESIDENTIAL SERVICE (including Residential Common Area)

1. Indoor Plumbing

- a. Toilets shall be high-efficiency or dual flush models rated and (third-party) tested at a maximum average flush volume of 1.28 gallons per flush (gpf) or a maximum of 1.1 and 1.6 gpf for a half and full flush respectively, and be certified as passing a 350 gram or higher flush test as established by the Uniform North American Requirements or other District-accepted third party testing entity. Pressure-assisted or flushometer type toilets shall be high-efficiency rated at a maximum 1.0 gpf. No flush or conversion devices of any other kind shall be accepted.
- b. Urinals shall have a maximum rated flow of 0.5 gpf or less, or be zero water consumption urinals.
- c. Showerheads shall be individually plumbed and have a maximum rated flow of 2.5 gallons per minute or less, and be limited to one showerhead per shower stall of 2,500 sq. inches in area or less. Installation of flow restrictors in existing showerheads does not satisfy this requirement.
- d. Lavatory faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 1.5 gallons per minute or less.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

- e. Kitchen faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 2.2 gallons per minute or less.
- f. Laundry washing machines shall be front loading horizontal axis or top loading models with both: (1) a water factor rating of 7.5; and (2) a maximum average water use of 7.5 gallons per cubic foot of laundry or less.
- g. Cooling towers not utilizing recycled water shall be equipped with recirculating systems and operate at a minimum of five (5) cycles of concentration. Newly constructed cooling towers shall be operated with conductivity controllers, as well as make up and blowdown meters.
- h. Food steamers in all food service facilities shall be boiler less or self-contained models where applicable.
- i. Ice machines shall be air-cooled or use no more than 25 gallons of water per 100 pounds of ice and shall be equipped with a recirculating cooling unit.
- j. Commercial refrigeration shall be air-cooled or if water-cooled, must have a closed looped system. No once through, single pass systems are permitted.
- k. Pre-Rinse Dishwashing Spray Valves shall have a maximum rated flow of 1.6 gpm or less.
- l. Vehicle wash facilities shall reuse a minimum of 50% of water from previous vehicle rinses in subsequent washes.

2. Outdoor Water Use

a. Landscaping.

- i. Plans shall be submitted to the District for review and approval by District for compliance with these Regulations prior to planting. Landscaping shall be designed to be irrigated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area.
- ii. Turf areas shall be limited to no more than 25% of the total irrigated area. Exceptions may be granted when using drought tolerant grasses. Turf is not permitted in areas or medians less than eight feet in width.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

iii. Non turf areas. At least 80% of the plant selection shall be native or climate-appropriate low water use species and require minimal water once established. Up to 20% of the plants may be of a non-drought tolerant variety as long as they are appropriately grouped together and irrigated separately and efficiently.

b. Irrigation.

i. Irrigation Efficiency. Irrigation systems shall be designed and installed to avoid overspray and runoff and be operated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area.

ii. Automatic, self-adjusting irrigation controllers shall be required on all irrigation systems and shall automatically activate and deactivate the irrigation system based on changes in the weather. All automatic irrigation systems shall be equipped with a moisture sensor and/or rain sensor shutoffs.

iii. Sprinklers and spray heads shall not be permitted in areas less than eight feet wide. All sprinklers shall have matched precipitation rates within each control valve and circuit. Landscape design best practices shall include distribution uniformity, head-to-head spacing, and setbacks from walkways and pavement.

iv. Valves and circuits shall be separated (individual hydrozones) based on plant material and water use.

v. Dedicated Irrigation Meter shall be required for irrigated landscaping of 5,000 square feet or more.

E. PENALTIES/CONSEQUENCES

Failure of Applicant to conform to this Regulation and these water-efficiency requirements stated herein may result in:

1. A requirement to resubmit water service application and water-efficiency plan at Applicant's expense until District approves water service.
2. District's inability to release water meter(s) for installation and inability to activate account until water-efficiency plan is approved by District.



August 23, 2007

Jeff Philliber, Coordinator
Lawrence Berkeley National Laboratory
Environmental Planning Group
One Cyclotron Road, MS 90J0120
Berkeley, CA 94720

Re: Notice of Preparation of an Environmental Impact Report for the Helios
Energy Research Facility, Lawrence Berkeley National Laboratory

Dear Mr. Philliber:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for Helios Energy Research Facility located at the Lawrence Berkeley National Laboratory (LBNL) in the Oakland/Berkeley Hills. EBMUD has the following comments.

WATER SERVICE

As stated in the NOP, EBMUD's Shasta and Berkeley View Pressure Zones currently serve the existing project site. If additional water service is needed, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing additional water service to the existing parcels. Engineering and installation of water services requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

The NOP indicates the potential for contaminated soils and/or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not inspect, install or maintain pipeline in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may pose a health and safety risk to construction or maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping in areas where groundwater contaminant concentrations exceed specified limits for discharge to sanitary sewer systems or sewage treatment plants. Applicants for EBMUD services requiring excavation in contaminated areas must submit copies of existing information regarding soil and groundwater quality within or adjacent to the project boundary. In addition, the applicant must provide a legally sufficient, complete and specific written remedial plan establishing the methodology, planning and design of all necessary

systems for the removal, treatment, and disposal of all identified contaminated soil and/or groundwater.

EBMUD will not design the installation of pipelines until such time as soil and groundwater quality data and remediation plans are received and reviewed and will not install pipelines until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists or the information supplied by the applicant is insufficient EBMUD may require the applicant to perform sampling and analysis to characterize the soil being excavated and groundwater that may be encountered during excavation or perform such sampling and analysis itself at the applicant's expense.

WATER RECYCLING

In 2004, EBMUD completed a study to determine the feasibility of supplying recycled water for irrigation purposes at the University of California at Berkeley (UC) through a Satellite Recycled Water Treatment Plant (WTP). Based on results of this study, EBMUD determined that it is not feasible at this time to provide recycled water to UC Berkeley, including the Lawrence Berkeley National Laboratory area, through either a Satellite Recycled WTP or the East Bayshore Recycled Water Project in the near future.

WASTEWATER

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Environmental Services Division. However, the City of Berkeley's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. The developer for this project needs to confirm with the City of Berkeley Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. As stated on page 76 of the Initial Study, the LBNL currently contributes to subbasins that exceed capacity during the wet season. The projected peak wet weather wastewater flows from the proposed Helios Enefy Research Facility need to be determined to assess the available capacity within the subbasin and confirmation included in the environmental documentation. Suggested language to include in the environmental documentation is as follows: "The City of Berkeley Public Works Department has confirmed that there is available wastewater capacity within Subbasin (*insert subbasin number here*) that is reserved for this project."

Jeff Philliber, Coordinator

August 23, 2007

Page 3

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD would request that the UC include requirements for the project to incorporate WaterSmart technology and design standards in the landscape and building design. At a minimum the landscape design should be designed to a water budget as described in the State Model Water Efficient Landscape Ordinance in Division 2, Title 23, California Code of Regulations, Chapter 2.7, sections 490 through 495. Provisions should be established to monitor the water budget for compliance after project completion. EBMUD will review applications for new standard water services and applications for expanded service for compliance with EBMUD Water Service Regulation Section 31, Water Efficiency Requirements (Enclosure 1). Although the NOP indicates that no new or expanded water service connections would be needed to serve the project, implementation of Section 31 water efficiency requirements for nonresidential service is recommended. EBMUD staff would appreciate the opportunity to meet with applicant's staff. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

CUMULATIVE IMPACTS

EBMUD is in the planning process for the design and construction of a 2.6 to 5.8 million gallon water storage tank in Strawberry Canyon. EBMUD is considering a number of different sites; three of which are in the immediate vicinity of the proposed Helios Project (Enclosure 2). Sites 2 and 5 are located at LBNL, while Site 7 is located on the UC Botanical Gardens property. Long term access to Site 2 could be via the proposed new access road to the Helios Project. Construction of the tank on Site 2 will include hillside excavation and removal via hauling trucks, as well as a new 20-inch pipeline in Centennial Drive, located south of LBNL.

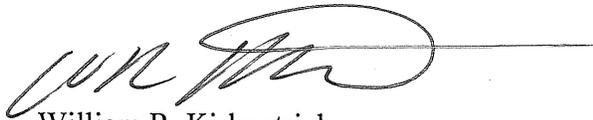
EBMUD anticipates completing a project-specific EIR by mid-2008. Construction of the tank and associated pipeline in Centennial Drive would occur in fall 2009 through fall 2011. However, as noted on page 18 of the NOP, construction of the Helios Project is planned for spring 2008 through winter 2010. Thus, construction of the EBMUD and LBNL projects may overlap, and can result in cumulative impacts to Strawberry Canyon and Centennial Drive, as well as the Berkeley community. Please include a reference to

Jeff Philliber, Coordinator
August 23, 2007
Page 4

this planned EBMUD improvement to the water distribution system that serves UC Berkeley and the surrounding the campus.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, at (510) 287-1365.

Sincerely,

A handwritten signature in black ink, appearing to read 'WRK', followed by a horizontal line extending to the right.

William R. Kirkpatrick
Manager of Water Distribution Planning Division

WRK:JAJ:djr
sb07_225.doc

Enclosures



SECTION 31

WATER EFFICIENCY REQUIREMENTS

These regulations identify the types of water efficiency requirements for water service and the procedure for notification to Applicants that water efficiency measures are required.

A. DETERMINATION OF FEASIBILITY OF WATER EFFICIENCY MEASURES

The District will review applications for new standard services and determine the applicability of, and compliance with, water-efficiency requirements. Applicants for expanded service may be required to retrofit existing water service facilities or uses to comply with these requirements. Applicant shall maintain design documents and construction and installation records and furnish a copy of said documents and records to the District upon request. The District may inspect the installation of water efficiency measures to verify that the items are installed and performing to the required water use levels. The Applicant or their representative may be present during any District inspection.

B. WATER EFFICIENCY REQUIREMENTS FOR NEW DEVELOPMENT OR EXPANDED SERVICE

Water service shall not be furnished to any Applicant for new or expanded service unless all the applicable water-efficiency measures hereinafter described in this Section 31 are installed at Applicant expense.

C. RESIDENTIAL SERVICE**1. Indoor Water Use (All Applicants)**

- a. Toilets shall be high-efficiency or dual flush models rated and (third party) tested at a maximum average flush volume of 1.28 gallons per flush (gpf) or a maximum of 1.1 and 1.6 gpf for a half and full flush respectively, and be certified as passing a 350 gram or higher flush test as established by the Uniform North American Requirements or other District-accepted third party testing entity. No flush or conversion devices of any other kind shall be accepted.
- b. Showerheads shall be individually plumbed and have a maximum rated flow of 2.5 gallons per minute or less and be limited to one showerhead per shower stall of 2,500 sq. inches in area or less. Installation of flow restrictors in existing showerheads does not satisfy this requirement.
- c. Lavatory faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 1.5 gallons per minute or less.
- d. Kitchen faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 2.2 gallons per minute or less.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

- e. Clothes washing machines shall be front loading horizontal axis or top loading models with both: (1) a water factor rating of 7.5; and (2) a maximum average water use of 7.5 gallons per cubic foot of laundry or less.

2. Outdoor Water Use

The provisions herein shall apply to all Applicants with more than two residential units.

a. Landscaping.

- i. Plans shall be submitted to the District for review and approval by District for compliance with these Regulations prior to planting. Landscaping shall be designed to be irrigated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area. Applicants with less than three residential units shall be required to complete a check list in lieu of a detailed landscaping plan.
- ii. Turf areas shall be limited to no more than 25% of the total irrigated area. Exceptions may be granted when using drought tolerant grasses. Turf is not permitted in areas or medians less than eight feet in width.
- iii. Non-turf areas. At least 80% of the plant selection shall be native or climate-appropriate low water use species and require minimal water once established. Up to 20% of the plants may be of a non-drought tolerant variety as long as they are appropriately grouped together and irrigated separately and efficiently.

b. Irrigation.

- i. Irrigation Efficiency. Irrigation systems shall be designed and installed to avoid overspray and runoff and be operated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area.
- ii. Automatic, self-adjusting irrigation controllers shall be required on all irrigation systems and shall automatically activate and deactivate the irrigation system based on changes in the weather. All automatic irrigation systems shall be equipped with a moisture sensor and/or rain sensor shutoffs. Applicants with less than three residential units are not required to install weather-based controllers.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

- iii. Sprinklers and spray heads shall not be permitted in areas less than eight feet wide. All sprinklers shall have matched precipitation rates within each control valve and circuit. Landscape design best practices shall include distribution uniformity, head-to-head spacing and setbacks from walkways and pavement.
- iv. Valves and circuits shall be separated (individual hydrozones) based on plant material and water use.
- v. Dedicated Irrigation Meter shall be required for irrigated landscaping of 5,000 square feet or more.
- c. Swimming Pools and Spas.
 - i. Covers shall be required for all pool and spa water features.

D. NONRESIDENTIAL SERVICE (including Residential Common Area)

1. Indoor Plumbing

- a. Toilets shall be high-efficiency or dual flush models rated and (third-party) tested at a maximum average flush volume of 1.28 gallons per flush (gpf) or a maximum of 1.1 and 1.6 gpf for a half and full flush respectively, and be certified as passing a 350 gram or higher flush test as established by the Uniform North American Requirements or other District-accepted third party testing entity. Pressure-assisted or flushometer type toilets shall be high-efficiency rated at a maximum 1.0 gpf. No flush or conversion devices of any other kind shall be accepted.
- b. Urinals shall have a maximum rated flow of 0.5 gpf or less, or be zero water consumption urinals.
- c. Showerheads shall be individually plumbed and have a maximum rated flow of 2.5 gallons per minute or less, and be limited to one showerhead per shower stall of 2,500 sq. inches in area or less. Installation of flow restrictors in existing showerheads does not satisfy this requirement.
- d. Lavatory faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 1.5 gallons per minute or less.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

- e. Kitchen faucets shall have aerators or laminar flow control devices (i.e. orifices) with a maximum rated flow of 2.2 gallons per minute or less.
- f. Laundry washing machines shall be front loading horizontal axis or top loading models with both: (1) a water factor rating of 7.5; and (2) a maximum average water use of 7.5 gallons per cubic foot of laundry or less.
- g. Cooling towers not utilizing recycled water shall be equipped with recirculating systems and operate at a minimum of five (5) cycles of concentration. Newly constructed cooling towers shall be operated with conductivity controllers, as well as make up and blowdown meters.
- h. Food steamers in all food service facilities shall be boiler less or self-contained models where applicable.
- i. Ice machines shall be air-cooled or use no more than 25 gallons of water per 100 pounds of ice and shall be equipped with a recirculating cooling unit.
- j. Commercial refrigeration shall be air-cooled or if water-cooled, must have a closed looped system. No once through, single pass systems are permitted.
- k. Pre-Rinse Dishwashing Spray Valves shall have a maximum rated flow of 1.6 gpm or less.
- l. Vehicle wash facilities shall reuse a minimum of 50% of water from previous vehicle rinses in subsequent washes.

2. Outdoor Water Use

- a. Landscaping
 - i. Plans shall be submitted to the District for review and approval by District for compliance with these Regulations prior to planting. Landscaping shall be designed to be irrigated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area.
 - ii. Turf areas shall be limited to no more than 25% of the total irrigated area. Exceptions may be granted when using drought tolerant grasses. Turf is not permitted in areas or medians less than eight feet in width.



SECTION 31

WATER EFFICIENCY REQUIREMENTS
(continued)

- iii. Non turf areas. At least 80% of the plant selection shall be native or climate-appropriate low water use species and require minimal water once established. Up to 20% of the plants may be of a non-drought tolerant variety as long as they are appropriately grouped together and irrigated separately and efficiently.
- b. Irrigation.
 - i. Irrigation Efficiency. Irrigation systems shall be designed and installed to avoid overspray and runoff and be operated at no more than 80% of the reference evapotranspiration (the amount of water required to maintain a healthy landscape accounting for the evaporation of water from the soil surface and the transpiration of water through the plant foliage) for the irrigated area.
 - ii. Automatic, self-adjusting irrigation controllers shall be required on all irrigation systems and shall automatically activate and deactivate the irrigation system based on changes in the weather. All automatic irrigation systems shall be equipped with a moisture sensor and/or rain sensor shutoffs.
 - iii. Sprinklers and spray heads shall not be permitted in areas less than eight feet wide. All sprinklers shall have matched precipitation rates within each control valve and circuit. Landscape design best practices shall include distribution uniformity, head-to-head spacing, and setbacks from walkways and pavement.
 - iv. Valves and circuits shall be separated (individual hydrozones) based on plant material and water use.
 - v. Dedicated Irrigation Meter shall be required for irrigated landscaping of 5,000 square feet or more.

E. PENALTIES/CONSEQUENCES

Failure of Applicant to conform to this Regulation and these water-efficiency requirements stated herein may result in:

1. A requirement to resubmit water service application and water-efficiency plan at Applicant's expense until District approves water service.
2. District's inability to release water meter(s) for installation and inability to activate account until water-efficiency plan is approved by District.



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Eye alt: 4011 ft

Streaming 100%

Pointer 37°52'28.31" N 122°14'24.43" W elev 704 ft



Potential EBMUD Tank Sites Near Proposed Helios Energy Research Facility

----- Forwarded Message

From: Carol Denney <cdenney@igc.org>
Date: Sun, 12 Aug 2007 10:09:35 -0700
To: <planning@lbl.gov>
Subject: comments on Draft EIR of Helios & CRT facility

Sunday, August 12, 2007

To: Jeff Philliber
Environmental Planning Coordinator
Lawrence Berkeley National Laboratory
1 Cyclotron Road
MS 90J-0120
Berkeley, CA 94720

Dear Mr. Philliber,

Please count me as a thirty-seven year Berkeley citizen strongly opposing the Helios Energy Research Facility Project and the Computational Research and Theory Facility:

- Strawberry Canyon's fragile ecology has already suffered greatly from poorly planned construction which is better situated elsewhere;
- The existing roads to and from these facilities are already overburdened with traffic, and would be even more hazardous with the traffic generated by the proposed facilities and the large trucks necessary for construction, especially during an emergency;
- The proposed buildings are near earthquake faults, located in a slide zone, and are right in the path of destructive firestorms which historically come down the canyon at an unstoppable pace.

There are literally dozens of locations better suited for these buildings than the fragile, steep walls of Strawberry Canyon. Please don't compound the mistakes made in the past by added to the canyon's burden, and laying the foundation for a disaster which, sadly, has obvious historical precedent.

Sincerely,

Carol Denney
1970 San Pablo Avenue #4
Berkeley, CA 94702

----- End of Forwarded Message

----- Forwarded Message

From: merrilie Mitchell <merriliem@sbcglobal.net>

Date: Fri, 24 Aug 2007 17:00:45 -0700 (PDT)

To: <planning@lbl.gov>

Subject: comments for DEIR due 8/24/2007

Jeff Philliber, LBNL,

1.) Where can you do the type of research you are planning in a safer environment, considering the densely populated, environmentally sensitive environment in Berkeley?

2.) Have you considered the more appropriate kinds of research re global warming that you could do in Berkeley to earn world-wide acclaim?

----- End of Forwarded Message