U. S. DEPARTMENT OF ENERGY
OFFICE OF SCIENCE

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
ENVIRONMENTAL EVALUATION NOTIFICATION FORM

To be completed by "financial assistance award" organization receiving Federal funding. For assistance (including a point of contact), see "Instructions for Preparing SC F-560, Environmental Evaluation Notification Form".

Solicitation/Award No. (if applicable):

Organization Name: Lawrence Berkeley National Laboratory

Title of Proposed Project/Research: Relocate Existing Meteorological Tower 44WT at Lawrence Berkeley National Laboratory (LBNL), Berkeley, California.

Total DOE Funding/Total Project Funding: Total DOE Project Funding $439,000

I. Project Description (use additional pages as necessary):

A. Proposed Project/Action (delineate Federally funded/Non-Federally funded portions)
Project Description:

The U.S. Department of Energy (DOE) proposes to relocate its existing 20-meter-tall meteorological tower ("Tower" – Facility No. 44WT) currently located immediately north of the former Building 44 Site. The proposed new location is a grassy slope adjacent to existing Building 27 (See Figure 1). The purpose of the relocation is to accommodate demolition and redevelopment in the area of the existing tower. The purpose of the Tower is to gather meteorological information, including wind speed, wind direction, temperature, rainfall, solar radiation, and atmospheric pressure, to support multiple purposes related to research and to LBNL Environment, Health & Safety Division data needs.

A relocation assessment was prepared by an independent expert (*LBNL Meteorological Monitoring Station Relocation Assessment*, Golder Associates, March 2011). The report assessed and ranked thirteen potential relocation sites throughout the LBNL hill site on the basis of several criteria, including meteorological exposure and representativeness, access and site logistics, visual prominence, and need for tree removal. The Relocation Assessment was further refined by the University to take into account ongoing operations, general aesthetics, and compliance with LBNL's 2006 Long Range Development Plan (LRDP). To avoid interference with nearby structures, minimize the number of trees to be removed, and account for its hillside location (compared to current flat location), it is proposed that the existing tower be raised by an additional 6 meters for a total new proposed height of 26 meters. Even at this height and new location, the elevation of the top of the relocated tower would be approximately 6 meters lower than the top elevation of the currently sited tower.

The project site (immediately west of Building 27) is surrounded by Building 53 on the south and Building 17 to the north. The proposed project would provide a new foundation and utilities (electricity and communications), and install minor stabilization, which might include hydroseeding. The foundation would be a grade-beam/pile-cap arrangement with an at-grade access path.

The proposed project would require the removal of a number of trees in the area. Approximately three mature Eucalyptus trees would be removed downslope of the proposed new location. In addition, it is proposed that approximately seven juvenile Douglas Firs be removed from a stand of 16 trees located northwest of Building 17. None of the trees to be removed are considered key screening trees in LBNL's 2006 LRDP Environmental

Impact Report (EIR) and Design Guidelines. The removal of these trees would not affect the views of LBNL from the surrounding, off-site community.

Project construction is expected to take place as follows: 1) Drill exploratory borings to gather geotechnical data needed for structural calculations and, if recommended or required, to test for any potential contamination. 2) Off-haul approximately ten cubic yards of excavated soil to LBNL's east canyon soil storage site or to an appropriate landfill in accordance with the project soil management plan. 3) Pour a new concrete pile cap and slab of up to 100 square feet. 4) Install one or two small retaining walls as needed to accommodate the existing slope. 5) Trench and install one 20 amp, 120 volt circuit to power the tower's equipment and conduits for communication lines. 6) Install an access pathway or stairs, hand rail, and security fencing, and conduct minor miscellaneous site work. 7) Dismantle and transport existing Tower to the proposed site. Reassemble, test, and commission relocated Tower.

Purpose and need:

The purpose of the relocation is to accommodate demolition and redevelopment in the area of the existing tower. The purpose of the Tower is to gather meteorological information, including wind speed, wind direction, temperature, rainfall, solar radiation, and atmospheric pressure, to support multiple purposes related to research and to LBNL Environment, Health & Safety Division data needs.

		Yes	No
B.	Would the project proceed without Federal funding?	☐	☒

If "yes", describe the impact to the scope:

II. Description of Affected Environment:

The Tower is currently located immediately north of the former Building 44 Site. The proposed new location is a grassy slope adjacent to existing Building 27 (See Figure 1). The proposed new site is highly disturbed land that is immediately adjacent to the intensively developed "Old Town" area of LBNL. The proposed location is similar to the existing site in terms of use and scale of development.

III. Preliminary Questions:

		Yes	No
A.	Is the DOE-funded work *entirely* a "paper study"?	☐	☒

If "Yes", ensure that the description in Section I reflects this and go directly to Section V.

B.	Would the work to be performed include work that would take place *outside a*n existing building?	☒	☐

And:

1.	Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?	☐	☒
2.	Require the siting, construction or major expansion of waste treatment, storage, or disposal facilities?	☐	☒
3.	Disturb hazardous substances, pollutants, or contaminants preexisting in the environment? Lead based paint and asbestos would be encountered during demolition	☐	☒
4.	Adversely affect environmentally-sensitive resources identified in Section IV.A.?	☐	☒

5.	Be connected to another existing/proposed activity that could potentially create a cumulatively significant impact?	☐	☒
6.	Have an inherent *possibility* for high consequence impacts to human health or the environment (e.g., Biosafety Level 3-4 laboratories, activities involving high levels of radiation)?	☐	☒

If "No" to Question III.B. and ALL six subsequent questions, ensure the descriptions in Sections I and II reflect this and go directly to Section V.

IV. Potential Environmental Effects:

Attach/insert an explanation for each "Yes" response.

A. Sensitive Resources: Would the proposed action result in changes and/or disturbances to any of the following resources?

		Yes	No
1.	Threatened/Endangered Species and/or Critical Habitats	☐	☒
2.	Other Protected Species (e.g., Burros, Migratory Birds)	☐	☒
3.	Sensitive Environments (e.g., Tundra/Coral Reefs/Rain Forests)	☐	☒
4.	Archaeological/Historic Resources	☐	☒
5.	Important Farmland	☐	☒
6.	Non-Attainment Areas for Ambient Air Quality Standards LBNL is in Bay Area Air Quality Basin, which is in federal non-attainment for Ozone and state non-attainment for ozone, PM10, and PM2.5. There would be very minimal, very temporary construction-related air emissions and essentially no operational air emissions. Any construction impacts would be sufficiently mitigated by adherence to Bay Area Air Quality Management District construction practices.	☒	☐
7.	Class I Air Quality Control Region	☐	☒
8.	Special Sources of Groundwater (e.g. Sole Source Aquifer)	☐	☒
9.	Navigable Air Space	☐	☒
10.	Coastal Zones	☐	☒
11.	Areas with Special National Designation (e.g. National Forests, Parks, Trails)	☐	☒
12.	Floodplains and Wetlands	☐	☒

B. Regulated Substances/Activities: Would the proposed action involve any of the following regulated items or activities?

		Yes	No
13.	Natural Resource Damage Assessments	☐	☒
14.	Exotic Organisms	☐	☒
15.	Noxious Weeds	☐	☒
16.	Clearing or Excavation (indicate if greater than one acre)	☐	☒
17.	Dredge or Fill (under Clean Water Act, Section 404, indicate if greater than ten acres)	☐	☒
18.	Noise (in excess of regulations)	☐	☒
19.	Asbestos Removal	☐	☒
20.	PCBs	☐	☒
21.	Import, Manufacture, or Processing of Toxic Substances	☐	☒
22.	Chemical Storage/Use	☐	☒
23.	Pesticide Use	☐	☒
24.	Hazardous, Toxic, or Criteria Pollutant Air Emissions Construction and grading activities would result in standard construction-related emissions of criteria pollutants (Particulate matter associated with earth movement, oxides of Nitrogen and reactive organic gasses associated with equipment engines; and diesel exhaust [toxic air contaminant] associated with	☐	☒

	equipment engines). By following BAAQMD best management practices, these levels are expected to be less than significant.		
25.	Liquid Effluents: Quantity and characteristics of effluent would not noticeably change as a result of this action.	☐	☒
26.	Underground Injection	☐	☒
27.	Hazardous Waste	☐	☒
28.	Underground Storage Tanks	☐	☒
29.	Radioactive Mixed Waste	☐	☒
30.	Radioactive Waste	☐	☒
31.	Radiation Exposure	☐	☒
32.	Surface Water Protection	☐	☒
33.	Pollution Prevention Act	☐	☒
34.	Ozone Depleting Substances	☐	☒
35.	Off-Road Vehicles	☐	☒
36.	Biosafety Level 3-4 Laboratory	☐	☒

C. Other Relevant Information: Would the proposed action involve the following?

		Yes	No
	Potential Violation of Environment, Safety, or Health Regulations/Permits	☐	☒
37.	Siting/Construction/Major Modification of Waste Recovery, or Waste Treatment, Storage, or Disposal Facilities	☐	☒
38.	Disturbance of Pre-existing Contamination: The existing tower has been tested to contain trace amounts of lead in the existing paint (150 ppm). Therefore, this coating is not classified as "lead-based" paint but, it as "lead-containing." The paint is in good condition and is not flaking. Nevertheless, controls and monitoring would be in place to avoid any releases to workers or the environment. All activities associated with the relocation would be carefully planned, executed, and monitored by qualified experts from LBNL's Environment, Health, & Safety Division and disposed of in accordance with all applicable laws and regulations.	☒	☐
39.	New or Modified Federal/State Permits	☐	☒
40.	Public Controversy	☐	☒
41	Environmental Justice	☐	☒
42.	Action/Involvement of Another Federal Agency (e.g. license, funding, approval)	☐	☒
43.	Action of a State Agency in a State with NEPA-type law: A California Environmental Quality Act (CEQA) review would be conducted.	☒	☐
44.	Public Utilities/Services	☐	☒
45.	Depletion of a Non-Renewable Resource	☐	☒
46.	Extraordinary Circumstances	☐	☒
47.	Connected Actions	☐	☒
48.	Exclusively Bench-top Research	☐	☒

V. Financial Assistance Award Organization Concurrence:

A. Organization Official (Name and Title): Jeff Philliber, LBNL Environmental Planner

Signature: /s/ Date: 8-2-11

e-mail: JGPhilliber@lbl.gov

B. Optional Concurrence (Name and Title): _____ _____
Signature: _____ Date: _____
e-mail: _____ Phone: _____

Remainder to be completed by SC

VI. SC Concurrence/Recommendation/Determination:

A. SC Office of Acquisition and Assistance or Office of Safety, Technical & Infrastructure Services:

Name and Title: Rick Chapman, General Engineer
Signature: /S/ Date: 8/2/11
e-mail: Rick.chapman@bso.science.doe.gov

B. SC NEPA Team Review:

Is the project/activity appropriate for a determination or a recommendation to the Head of the Field Organization by the NEPA Compliance Officer (NCO) under Subpart D of the DOE NEPA Regulations?

Yes ☒ No ☐

Specific class of action from Appendices A-D to Subpart D (10 CFR 1021):

B3.1(h) ("Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation .... (including) .... (h) Installation and operation of meteorological towers and associated activities.")

Name and Title: Kim Abbott, NEPA Program Manager
Signature: /S/ Date: 8/2/2011
e-mail: kim.abbott@bso.science.doe.gov

C. SC ISC Counsel (if necessary):

Name and Title: _____
Signature: _____ Date: _____
e-mail:

D. SC ISC Field Office NEPA Compliance Officer:

The preceding pages are a record of documentation required under DOE Final NEPA Regulation, 10 CFR 1021.400.

☑ Action may be categorically excluded from further NEPA review. I have determined that the proposed action meets the requirements for Categorical Exclusion referenced above.

☐ Action requires approval by Head of the Field Organization. Recommend preparation of an Environmental Assessment.

☐ Action requires approval by Head of the Field Organization or a Secretarial Officer. Recommend preparation of an Environmental Impact Statement.

Comments/Limitations if necessary:

Print Name Gary S. Hartman

Signature: /s/ Date: 8/2/2011

ORO NEPA Compliance Officer


Location of proposed
Relocated Met Tower near
Bldg 27
Location of existing
Met Tower #44WT
B27
B53
B52
B44

Figure 1