



# U.S. Department of Energy Categorical Exclusion Determination Form

Proposed Action Title: Linear Assets Modernization Project (LB-CX-22-02)

Program or Field Office: Bay Area Site Office, Lawrence Berkeley National Laboratory

Location(s) (City/County/State): Berkeley, California

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Proposed Action Description: The US Department of Energy (DOE) proposes to perform assessment, modernization, and upgrade of the existing sitewide utility systems at the Lawrence Berkeley National Laboratory (LBNL, or the Laboratory) main site. (See Figure 1) These activities would be undertaken under the proposed Linear Assets Modernization Project (LAMP). Utility systems to be modernized under LAMP include water, sewer, and storm drain lines; electric and natural gas lines; compressed air lines; and communications cables. Hydraulics, which are drainage pipes that promote the stability of LBNL's steepest slopes, would also be replaced. The purpose of the LAMP project is to address all deficient utility systems and support the long-term safety, reliability, and capability of LBNL infrastructure so that the Laboratory may continue to effectively carry out its research mission. Upgraded utilities would be sized in anticipation of future needs; for example, to serve potential future increases in power demand at LBNL's Bldg. 59, which houses successive generations of high-performance computing systems.

LAMP utility work would take place within or contiguous to developed areas of the LBNL site; most such project areas are roadbeds or are otherwise paved. (See Figure 2) The focus would be on approximately 10,000 linear feet of subsurface trenches, duct banks, and utility corridors. Under the project, existing utility trenches would be uncovered and exposed, utility lines would be swapped out, and the trenches would be recovered and resurfaced. Utility lines and appurtenances to be replaced would either be abandoned in place or removed and recycled or disposed of off-site. Decisions on exact sizing, alignments, and disposition of new utility lines would be made as work progressed throughout the lifetime of the project. In a few cases, new duct banks would likely be constructed outside of existing utility trenches (expected to represent less than 3-percent of the overall project). Such relatively short segments nevertheless would be within developed or previously disturbed areas. Most or all LAMP excavation activity would entail conventional trenching; in isolated cases directional drilling might be employed. A small number of trees might be trimmed or removed with new trenching; in such cases, trenches would be aligned to avoid native tree species (as opposed to invasive eucalyptus and pine trees).

Project work is expected to begin in early 2023 and end in mid-2029. To minimize disruption to LBNL operations during project construction, the proposed project would be executed in a carefully planned sequence of two "Sub-Projects." This would allow for planned outages and temporary bypasses to be in place while particular sectors of the LBNL site are undergoing utility replacement. Sub-Project 1 is expected to take place from early 2023 to mid-2026; Sub-Project 2 from mid-2026 to mid-2029.

During peak construction periods, the proposed Project is expected to employ on average about 30 daily construction workers on site. Construction work is expected to take place during normal business hours and days; exceptions might be made (e.g., weekend work) when necessary to accommodate safety concerns and to minimize disruption to on-going LBNL operations.

Construction truck trips would be generated as new utility equipment is imported to the site and as excess soils and obsolete utility equipment are exported for recycling or disposal. Soil disposal is expected to require approximately 300 truck trips, which equates to approximately 4 truck trips per month on average over the project duration. Importation of new equipment and off-hauling of retired equipment for recycling or disposal would account for an estimated additional 4 trucks per month, on average. The frequency of truck trips would be relatively modest given the incremental nature of the work and the

lengthy duration of the proposed schedule. Furthermore, truck trips would be managed under the Lab's Construction Truck Trip Management Program, which ensures that cumulative construction trucks at LBNL stay below a significance threshold calculated by an independent traffic engineer. Other LBNL projects expected to take place during the LAMP timeframe, including the Grizzly Peak Substation Expansion and BioEPIC construction, would be included in the Construction Truck Trip Management Program and would not otherwise be expected to generate cumulatively considerable impacts as per 50 CFR §1508.7.

All equipment and soil to be removed would be inspected and characterized for the presence of hazardous materials, including asbestos, lead-based paint, volatile organics, and PCBs. Any contaminants would be abated and disposed of under the oversight of Berkeley Lab's EH&S specialists and in accordance with all applicable regulations and standards. Transite pipe containing asbestos would likely be retired in place (which is environmentally superior to transporting and disposing offsite) where utility corridor space is sufficient. Any contaminated soils or materials for off-haul would be consolidated and organized for efficient and safe transport; they would then be hauled to a designated hazardous material landfill or facility. Other soils and materials would be transported to recycling facilities or non-hazardous disposal facilities.

All applicable LBNL Standard Project Features (SPFs) to minimize environmental effects would be employed by the project. Dust and emission control would be implemented and all necessary permits would be secured from the Bay Area Air Quality Management District. All project construction would take place within or adjacent to developed or previously disturbed areas. Any trees selected for trimming or incidental removal would be inspected by qualified wildlife biologists for nesting birds and brooding bats pursuant to LBNL policy and SPFs, and appropriate avoidance measures would be taken. A Stormwater Pollution Prevention Plan (SWPPP) would be implemented for LAMP; this would either be through a minor modification to LBNL's Sitewide Industrial SWPPP or through a new, dedicated General Construction Permit SWPPP. No buildings would be removed or modified. The project would not take place within the Area of Potential Effect of historic districts or structures identified pursuant to the National Historic Preservation Act.

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Categorical Exclusion(s) Applied:

- B1.3 - Routine maintenance
- B1.16 - Asbestos removal
- B1.17 - Polychlorinated biphenyl removal
- B1.23 - Demolition and disposal of buildings
- B1.33 - Stormwater runoff control
- B1.31 - Installation or relocation of machinery and equipment
- B4.6 - Additions and modifications to transmission facilities
- B4.7 - Fiber optic cable
- B4.10 - Removal of electric transmission facilities
- B4.11 - Electric power substations and interconnection facilities
- B4.12 - Construction of powerlines
- B4.13 - Upgrading and rebuilding existing powerlines
- B5.4 - Repair or replacement of pipelines
- B5.5 - Short pipeline segments

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

I concur that the above description accurately describes the proposed action.

**LBNL Environmental  
Planner:**



Jeff Philliber

10/21/2021

Date Determined

[Click here to enter a date.](#)

**BASO NEPA Program  
Manager:**

Jose Roldan

Date Determined

The above description accurately describes the proposed action, which reflects the requirements of the CX cited above. Therefore, I recommend that the proposed action be categorically excluded from further NEPA review and documentation.

**BASO NEPA Program  
Manager:**

Mary Gross

Date Determined

[Click here to enter a date.](#)

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1 B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

**NEPA Compliance  
Officer:**

Peter Siebach

Date Determined

[Click here to enter a date.](#)

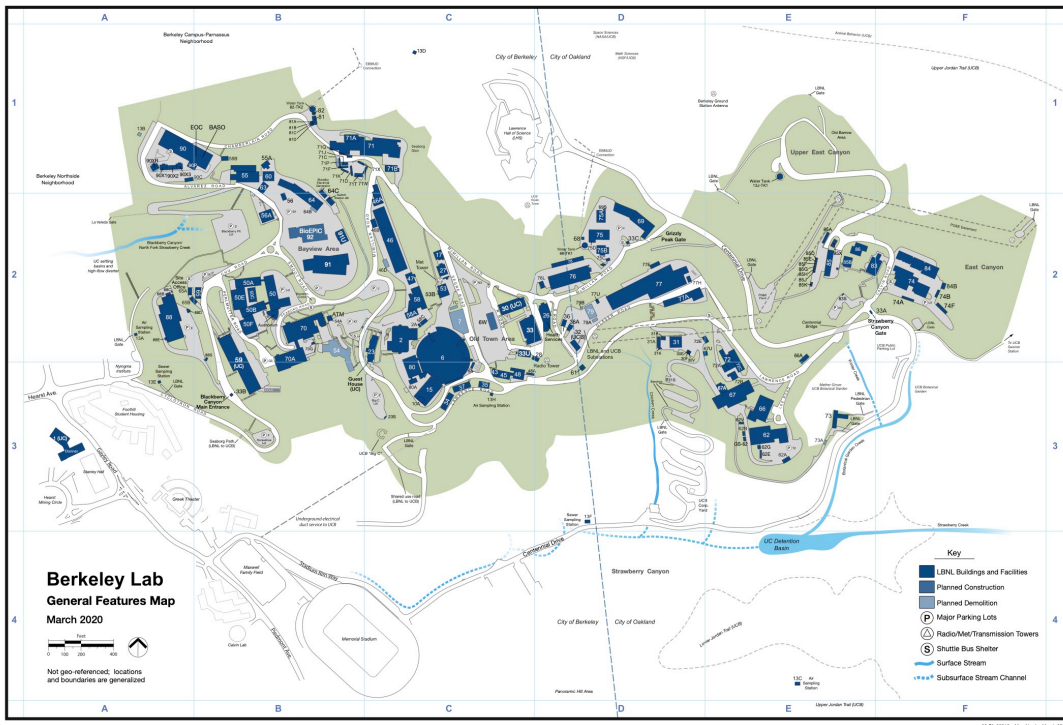


Figure 1: Berkeley Lab Site

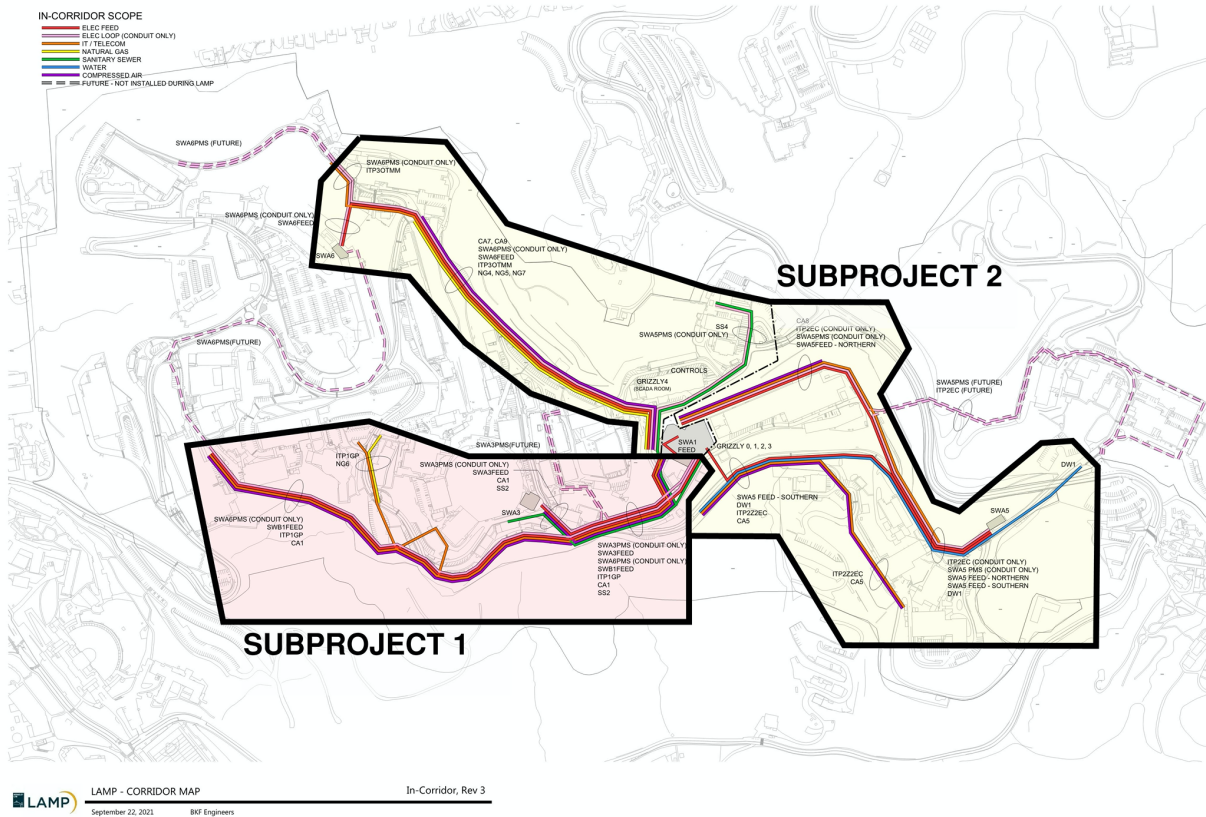


Figure 2: Project and Sub-Project Utility Corridors