# LLNL SWEIS: Environmental Stewardship

**The National Nuclear Security Administration (NNSA) recently published a new Draft Site-wide Environmental Impact Statement (SWEIS) for the Lawrence Livermore National Laboratory.**

The Draft LLNL SWEIS analyzes the potential environmental impacts of the continued operation and potential expansion of the Laboratory over the next fifteen (15) years. The Draft SWEIS is the third comprehensive SWEIS prepared to evaluate the potential environmental impacts of the Laboratory. The last LLNL SWEIS was completed in 2005. This fact sheet describes some of the environmental stewardship activities and initiatives at LLNL.

NNSA strives to maintain a safe, secure, and efficient operational environment for its employees and neighboring communities. Experts in environment, safety, and health (ES&H) support all Laboratory activities. LLNL's radiological control program ensures that radiological exposures and releases are reduced to as low as reasonably achievable to protect the health and safety of its employees, contractors, the public, and the environment.

NNSA is committed to enhancing its environmental stewardship and managing the impacts its operations may have on the environment. The Laboratory encourages the public to participate in matters related to the Laboratory's environmental impact on the community by soliciting citizens' input on matters of significant public interest and through various communications. The Laboratory also provides public access to information on its ES&H activities with websites and public meetings.

## ACTIVITIES AND INITIATIVES TO IMPROVE RESILIENCE AT LLNL

Carbon pollution-free energy roadmap. NNSA is first focusing on growing computing loads and implementing energy efficiency in data center facilities including the installation of cold aisle containment systems, increasing ambient temperatures and reducing occupancy lighting, server consolidation, and server virtualization. A managed print services program was implemented that includes full on-site support to support sustainability of imaging equipment and associated resources by closely tracking data on device utilization and age, paper and toner use, and EPEAT qualified products. While implementing energy efficiency measures, NNSA continues to evaluate and increase carbon pollution-free electricity options including the ten acre solar installation at LLNL for the purchase of solar energy and additional carbon pollution-free energy power contracts through the Western Area Power Administration.

Closing the loop and reducing potable water use. NNSA completed a Wastewater Reuse Feasibility Study in 2019 and continues to evaluate alternatives to reduce the use of potable water for non-potable demand. A possible option is discussed in the Draft SWEIS and includes an extension of the City of Livermore's purple pipe system to LLNL. This option could further close the loop and result in less treated wastewater being exported from the Valley to the San Francisco Bay. The demand for irrigation has been reduced with the continued conversion of turf to native landscaping including a 25,000 square foot demonstration garden that uses treated groundwater and a one acre conversion along the East Ave. entrance. NNSA implemented a multi-tiered site-wide utility valve replacement project and replaced over 150 water valves and 70 leaking compressed air valves.

Electric Vehicle and Charging Infrastructure Program. LLNL is a leader in supporting the Executive Order 14057 goal of converting the federal fleet acquisitions from conventional fuel to electric by 2027. There are over 40 electric vehicle charging stations and additional stations under construction. In 2019, DOE/NNSA won an EPA Federal Green Challenge

award for its electric vehicle program at LLNL. DOE/ NNSA won an award for exceeding the goal to increase the number of electric vehicles by 10 percent at LLNL, it exceeded this goal significantly by increasing the number by 200 percent.

Smart and Sustainable Buildings. Several new buildings are in design or currently complete and certified to US Green Building Council Leadership in Energy and Environmental Design (LEED) criteria or Federal High Performance Sustainable Design Guiding Principles. The Applied Materials and Engineering (AME) complex includes the Polymers Capability Facility (Building 223) and the AME office building (Building 224)—both achieved Leadership in Energy and Environmental Design (LEED) certification. The Building 642 Complex and Emergency Operations Center were recently completed and certified LEED Gold. Applying best practices continues to help reduce LLNL's energy and water intensity, and greenhouse gas (GHG) emissions. These best practices include alerting facility managers of excessive use in their facilities, updating and adapting equipment operating schedules to meet the changing requirements of occupants, and tracking energy and water use and comparing against expected performance.

**HOW TO PROVIDE COMMENTS:**

**At the public meeting**

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Comment period ends on **January 3, 2023**

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Copies of the Draft LLNL SWEIS are available for review at the Livermore Public Library, 1188 South Livermore Avenue, Livermore, California, and the Tracy Public Library, 20 East Eaton Avenue, Tracy, California.

Copies are available electronically at:
https://www.energy.gov/nepa/doeeis-0547-site-wide-eis-continued-operation-lawrence-livermore-national-laboratory-livermore