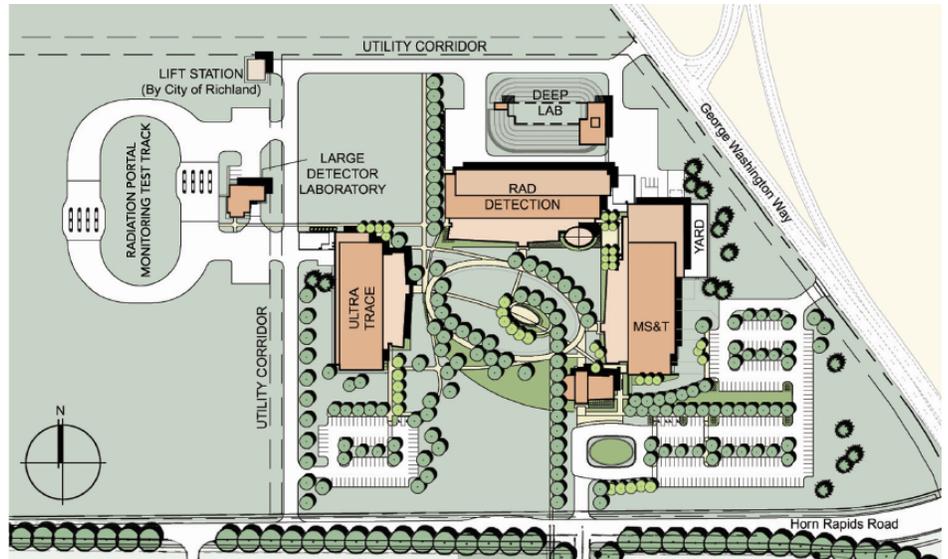


Deep Laboratory

Supporting Vital National Security Research



The science that will be developed in the Deep Laboratory will advance both national security and our fundamental understanding of nature.



Now under construction, the Deep Laboratory is one of five new research laboratories that comprise the Physical Sciences Facility.

PNNL MODERNIZING INFRASTRUCTURE

The Deep Laboratory is a part of a major construction effort at PNNL, which is transforming the national laboratory. In the summer of 2007, work began on the nearly 200,000-square-foot Physical Sciences Facility (PSF) complex that will house important national and homeland security scientific capabilities, equipment and staff displaced by the accelerated cleanup of the Hanford Site's 300 Area. This federally financed replacement facility is jointly sponsored by the U.S. Department of Energy's Office of Science (SC), the National Nuclear Security Administration (NNSA) and the U.S. Department of Homeland Security (DHS). The construction effort, the largest in the 40-year history of PNNL, is managed through the Capability Replacement Laboratory project. In addition to the PSF, two privately funded laboratories—the Biological Sciences Facility and the Computational Sciences Facility—are being built.

Once complete, this new infrastructure will enable PNNL researchers to better create interdisciplinary teams across multiple scientific disciplines. It also will make PNNL the most modern multiprogram national laboratory in the DOE complex.



The Deep Laboratory under construction at PNNL will be located 40 feet below the ground to support ultra-low level counting.

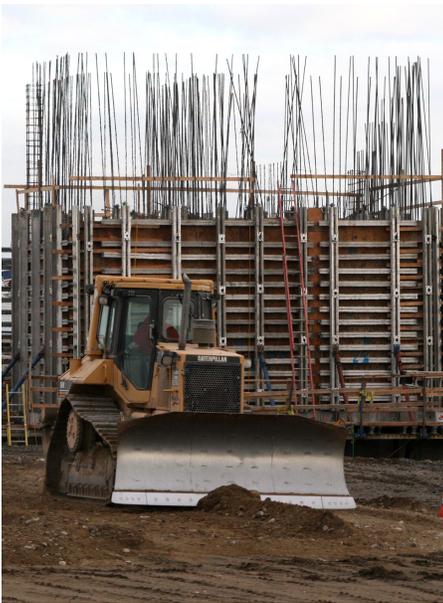
RELOCATING RESEARCH CAPABILITIES

Much of the homeland and national security scientific research from the 300 Area and about 450 staff will be transitioned by 2011 to the largest replacement facility to be built, the PSF. This modern complex will contain three laboratories—Materials Science and Technology, Ultra-Trace and Radiation Detection—as well as a low-level underground laboratory, a large detector laboratory, and a radiation portal monitoring test track.

This new infrastructure will make PNNL the most modern multiprogram national laboratory in the DOE complex. It also more easily enables PNNL scientists and engineers to create multidisciplinary teams that crosscut scientific platforms.

FACILITY DESIGN FEATURES

- ▶ Located 40 feet below the ground
- ▶ Most of facility is a clean laboratory



Research to be conducted in the Deep Laboratory will support important homeland and national security missions.

▶ DEEP LABORATORY DESIGN FEATURES

Scientific Capabilities

- Radiation physics
- Ultra-low radioactivity material development
- Fundamental science
- Ultra-low level counting

Key Programmatic Research

- National Nuclear Security Administration
 - Office of Nonproliferation Research and Engineering

- Intelligence Community
- Department of Energy Office of Science

Total Square Feet:
6,602

- 2,165 sq. feet lab space

Relocated from
300 Area

- 329 Building



ABOUT PNNL

Pacific Northwest National Laboratory is a Department of Energy Office of Science national laboratory where interdisciplinary teams advance science and technology and deliver solutions to America's most intractable problems in energy, national security, and the environment. PNNL employs 4,000 staff, has a \$855 million annual budget, and has been managed by Ohio-based Battelle since the Lab's inception in 1965.

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