

cleanup date

U.S. DEPARTMENT OF ENERGY/BROOKHAVEN NATIONAL LABORATORY/BROOKHAVEN SCIENCE ASSOCIATES

ENVIRONMENTAL MANAGEMENT DIRECTORATE — VOL. 7/NO. 2/DECEMBER 2003



Using dip nets and a seine net, workers inspected the ponds for salamanders. The five that were found were moved to another known salamander habitat on site.

Tiger salamanders relocated for meadow marsh cleanup

In August, cleanup began at two meadow marsh ponds. The manufactured ponds, located in the eastern part of the U.S. Department of Energy's Brookhaven National Laboratory, were used for sewage treatment experiments in the 1970s. The project involved cleaning and reconstructing the ponds to protect an endangered tiger salamander population.

Tiger salamanders use the ponds for breeding in late winter and early spring. After they lay their eggs, the salamanders migrate to upland areas. As a result, mid-summer and early fall mark an ideal time for cleanup.

When the tiger salamanders return in January, they will discover a larger, newly vegetated, better-lined habitat that is free of potentially harmful heavy metals.

As directed in the Operable Unit I Record of Decision, workers pumped

out nearly 55,000 gallons of water from the ponds, removed 240 cubic yards of contaminated sediment and degraded pond liners, and then reconstructed the wetlands.

The sediment will be loaded into rail cars and transported to a licensed off-site disposal facility.

Following the sediment removal, the berm separating the two cleaned ponds was removed to create one large pond. New soil, a protective liner, and wetland plants will help establish the reconstructed pond. Finally, plans call for an on-site irrigation well to provide the fresh water to fill the ponds.

Tiger salamanders are native to Long Island and have a limited habitat due, in part, to increasing land development. The Laboratory property is one of the area's largest habitats for the salamanders. ■

Ash pit cleanup complete at Lab

This summer, cleanup was completed at a three-acre site at the U.S. Department of Energy's Brookhaven National Laboratory. The site, known as the ash pit, was located in the southern part of the Laboratory. Prior to 1963, some Laboratory waste was incinerated, as was the practice in that era. Ash and slag from a solid waste incinerator that operated from 1943 to 1963 was dumped into the pit.

The principal contamination sources in the ash pit were bottom ash from the incinerator and coal ash. Contaminants of concern included metals such as zinc, lead, and copper. Also found were low concentrations of radionuclides, at levels typical of incinerated ash.

The Record of Decision requires the ash to be covered with soils at least 12 inches deep. The southern portion of the area, however, had ash and slag on the surface. The northern portion has a road and grass-covered fire break. The cleanup called for some tree removal, backfilling to even out the grade, placement of 12 inches of top soil to cover the ash, and reseeding the area with native grasses.

By late July, the soil was in place and the depth was verified. Native grasses, including rye and switch grass, were then sown into the new, clean topsoil layer.

The cleanup work completed this summer represents the final remedy for the ash pit and is consistent with the Operable Unit I Record of Decision agreed to with the regulators. This area will continue to be monitored. ■

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updates

2002 Groundwater report: Information detailing Brookhaven National Laboratory's groundwater cleanup program is now available in the annual Groundwater Status Report. This report, available online at <http://www.bnl.gov/erd/groundwater.html>, reviews the year's challenges, accomplishments, and the path forward regarding clean up of groundwater contamination.

Copies are also available for review at the Longwood, Mastics-Moriches-Shirley, BNL, and EPA Region II libraries.

Closure: Following review of a "Petition for Closure", EPA and NYSDEC have approved the closure of one of BNL's earliest installed groundwater treatment systems. The system, installed in 1997, operated on site for approximately four years. Using air sparging and soil vapor extraction, it cleaned chemical contamination in soil and groundwater. In July, 2003, the regulators agreed that this system met its cleanup goal for groundwater in this area. Groundwater monitoring will continue.

Groundwater cleanup: Progress continues in the installation of the off-site groundwater treatment systems south of the Laboratory. The building at the airport is being constructed, groundwater pumping and recharge wells are being installed, pipe installation is nearing completion, and road restoration is in progress. Construction of a system located at the eastern portion of the industrial park south of the expressway is almost complete and is expected to begin operational testing early in 2004.

The U.S. Department of Energy and Brookhaven National Laboratory acknowledge and appreciate the continued cooperation and patience of the East Yaphank community. In addition, several local agencies and institutions have provided assistance by allowing the Lab access to several key parcels of land to facilitate the cleanup effort. These organizations include the Town of Brookhaven, Dowling College, the Long Island Power Authority, Suffolk County, and private property owners.

For more information, please see <http://www.bnl.gov/erd/groundwater.html> ■

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A newsletter from the Environmental Management Directorate (www.bnl.gov/erd) at Brookhaven National Laboratory, *cleanupdate* is part of an ongoing effort to inform people about environmental restoration issues and activities at the Lab. If you would like to be on the Environmental Management Directorate mailing list, or if you have any questions about the cleanup, please contact:

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