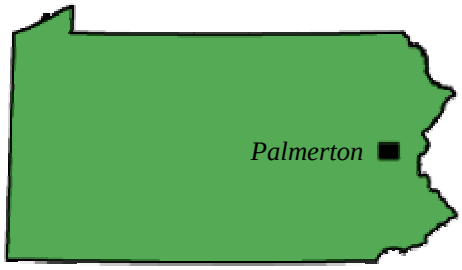
Restoring Our Resources

Pennsylvania's Palmerton Zinc Pile: Blue Mountain, Stony Ridge, Aquashicola Creek and the Lehigh River

Environmental pollution often results in injury to fish, wildlife, and other natural resources. The Department of the Interior, along with State, Tribal, and other Federal partners, represent the public as "Trustees" for these natural resources. Trustees seek to identify the natural resources injured, determine the extent of the injuries, recover damages from the polluters, and plan and carry out natural resource restoration activities. These efforts are possible under the Natural Resource Damage Assessment and Restoration Program (NRDAR), whose goal is to restore, replace, or acquire equivalent natural resources injured by pollution. Federal and State Trustees are working toward accomplishing this goal around Palmerton Pennsylvania by engaging in assessment and restoration activities.



Palmerton is located in eastern Pennsylvania adjacent to Aquashicola Creek, Blue Mountain, and the Lehigh River

The Palmerton Area

The Palmerton Zinc Pile Superfund site is located in the Ridge and Valley Province of Carbon, Lehigh, and Northampton Counties, Pennsylvania. The Palmerton valley is bordered by Blue Mountain to the south and Stony Ridge to the north, and is cut through by the Lehigh River to the west of the Borough of Palmerton. Aquashicola Creek drains the majority of the site, flowing in a southwest direction adjacent to the Borough of Palmerton and joining the Lehigh River at the Lehigh Gap.

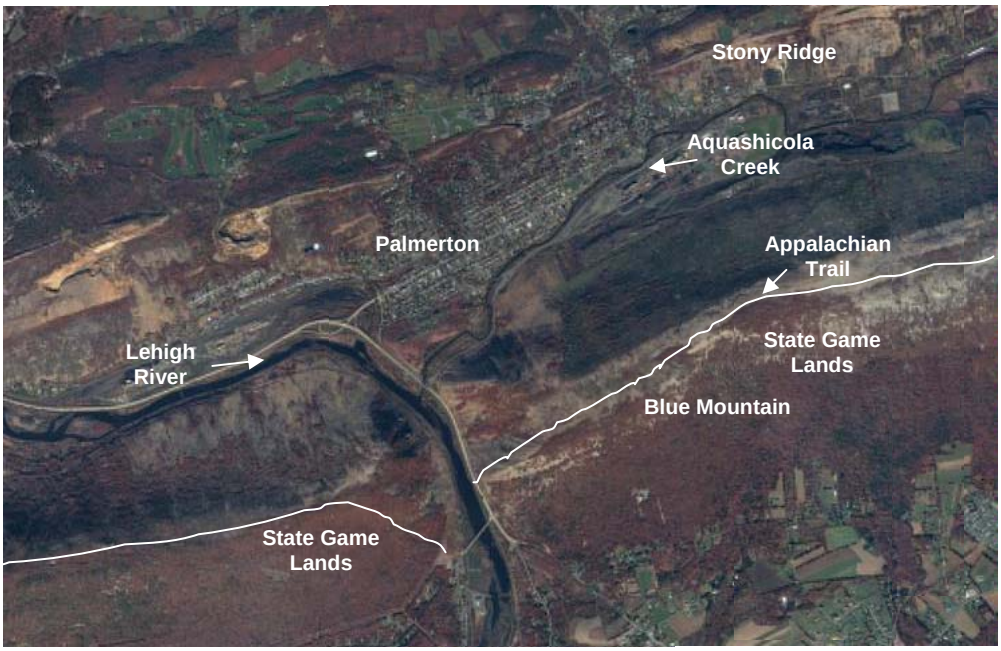
The National Park Service owns and maintains approximately 800 acres of land that has been acquired to protect the Appalachian National Scenic Trail, which winds along the Blue Mountain ridge and through the associated gaps of the area. The Pennsylvania Game Commission also owns several thousand acres of potentially affected State Game Lands on Blue Mountain. The natural resources in this area have traditionally provided habitat for numerous plant and animal species and opportunities for economic and recreational uses, including timber production, wildlife food plot production, fishing, hunting, hiking, boating, and wildlife viewing.

The Problem

For 90 years, a zinc smelting plant emitted large quantities of metals that were wind-carried and deposited over surrounding areas. Because the high concentrations of metals are toxic to plants, thousands of acres of forestland around the plant were killed. In addition, 32 million tons of smelting waste were placed in a 2.5-mile long "cinder

The Palmerton zinc mill began operations in 1898. By the time primary zinc mill smelting ceased in 1981, thousands of acres of forestland and miles of aquatic habitat had been severely contaminated by metals from the mill.

bank" adjacent to Aquashicola Creek. Rain and shallow groundwater leach metals from the cinder bank into Aquashicola Creek. Surface runoff washes contaminated soils into Aquashicola Creek and the Lehigh River. The contaminants of greatest concern are arsenic, cadmium, copper, lead and zinc. These contaminants are harmful or toxic to aquatic life, plants, and wildlife, and can accumulate in the tissue of plants and animals. The Palmerton Zinc Pile has been designated by the Environmental Protection Agency as a Superfund site. Superfund is the Federal government's program to clean-up hazardous waste sites that may endanger public health or the environment. Superfund clean up is underway at this site, but it will not be sufficient to restore all injuries to natural resources nor compensate for losses of the services that these resources provide to the public.



Aerial photograph showing a portion of Blue Mountain, the Lehigh River, Aquashicola Creek, and Stony Ridge. The actual extent of contaminated lands and aquatic resources will require further study, but is far greater than shown here.

Restoring the Resources

The Department of the Interior, (including the U.S. Fish and Wildlife Service and the National Park Service), the National Oceanic and Atmospheric Administration, the Pennsylvania Department of Conservation and Natural Resources, the Pennsylvania Department of Environmental Protection, the Pennsylvania Fish and Boat Commission, and the Pennsylvania Game Commission are working together as natural resource Trustees to assess the full extent of injuries to natural resources, and develop a restoration plan.

The Process

The first step in developing a restoration plan involves assessing the extent of the problem. The Trustees have begun this process by completing a "preassessment screen" based on existing information. Over the next few years the Trustees will conduct studies to further evaluate and document injuries to natural resources. Information collected from these studies will be compiled into a Natural Resources Damage Assessment.

The exact type and amount of restoration depends on data and results developed from an injury assessment. Possible restoration projects might include habitat improvements, reduction of pollutant loads, enhancement of fish and wildlife populations, and trail development. Land may also be acquired to provide increased access, preserve open space and compensate for lost resources and their uses.

Restoration planning will be an integral part of this process. We are interested in learning what types of restoration projects would benefit the public and we will hold public meetings to solicit comments and ideas.

Looking northwest along the Lehigh River and toward Stony Ridge in fall. Metals in the soils continue to be leached and washed into Aquashicola Creek and the Lehigh River, contaminating the water and sediments and injuring aquatic life.

Partnership for Success

The success of the Palmerton restoration effort will rely on extensive cooperation between Federal, State and local agencies, and the companies involved with this site. Throughout this process, the Trustees will seek public involvement and partnerships with non-profit organizations, private organizations, and individuals to work together to secure a healthier ecosystem and a cleaner environment for people to enjoy.

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