

Brinkerton AMD

Design Features: 8- acre Wetland Treatment System

Date of Installation: 2008

Location: Near the small town of Brinkerton.

Client: Sewickley Creek Watershed Association

Cost: \$664,000

Project Contact: Rob Cronauer, Rob@wcdpa.com or Thomas Keller, scwa@sewickleycreek.com



Photo taken during construction of Brinkerton wetland treatment system.

Project Partners:

Sewickley Creek Watershed Association, U.S. Department of Agriculture - Natural Resources Conservation Services, U.S. Department of Energy, U.S. Department of Interior – Office of Surface Mining, U.S. Environmental Protection Agency, PA Department of Environmental Protection, PA Game Commission, Pennsylvania's Growing Greener II County Environmental Initiative, Penn's Corner Resource Conservation and Development Area, Westmoreland County, Westmoreland Conservation District, Mount Pleasant Township, Foundations for PA Watersheds, Western Pennsylvania Conservancy, and Boy Scouts of America.

Project Specifications:

The project was designed to treat one of the first and largest abandoned mine pollution sources to Sewickley

Creek. This source is an upwelling of ground water from an abandoned underground coal mine, near the small town of Brinkerton, in Mount Pleasant Township, Westmoreland County. The treatment solution was to stop the discharge from going into the stream and to direct it instead first through a mechanical aerator and then into a large 8- acre wetland, where the oxidation of iron will settle out and sink to the bottom of the wetland. Then the clean water can be returned to the stream. However, a new large upwelling of AMD (approximately 1,000 gpm) appeared shortly after construction which would not be captured by the aerator. The project was then designed to reconfigure the system in order to recapture the new AMD upwelling to allow for it to be directed through the aerator.

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Work to be completed in 2015:

Western Pennsylvania Conservancy acquired a \$225,000 Act 13 grant through the Department of Community and Economic Development to update the previously constructed passive treatment system and to treat an additional mine drainage discharge adjacent to the Brinkerton treatment site. The grant will be used to improve the efficiency of the treatment system by installing electrical power to an aeration system that will speed the settlement of iron from the

water. Other modifications will reduce maintenance requirements and allow more water to be treated. In addition, Sewickley Creek Watershed Association acquired a \$119,400 Growing Greener grant to remove accumulated iron from the existing treatment system, which will also improve the performance of the system. In addition, the iron removed from the system will be processed and sold as a beneficial use byproduct with the profits being used to support continued maintenance of the system.



Aerial Photo taken from Google Maps of the Brinkerton Site.

[For additional information and printable PDF Fact Sheet \(Click Here\)](#)

Brinkerton AMD



Brinkerton Wetland Treatment System during winter.



Historic coke ovens adjacent to the Brinkerton Wetland Treatment System.