

Andrews Run Abandoned Mine Drainage (AMD) Passive Treatment System

Design Features: AMD passive treatment system (anoxic limestone drain, drainable limestone bed, two open settling ponds)

Date of Installation: 2015-2016

Location: Herminie, Sewickley Township, Westmoreland County, PA

Client: Sewickley Creek Watershed Association

Cost: \$182,782

Project Partners: Herminie No. 2 Game Association, Hedin Environmental, Department of Environmental Protection, Sewickley Creek Watershed Association, Westmoreland Conservation District, Adam Eidemiller Inc., Santella Excavating LLC

Project Contact: Rob Cronauer,
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Aerial photo of hydroseeding on finished site

Project Specifications

The site of the project, which was previously owned and managed by Bulldog Excavating, was a source of untreated abandoned mine drainage (AMD) that was polluting Andrews Run, a tributary to Sewickley Creek. The treatment became the PA Department of Environmental Protection's (PADEP) responsibility, and plans for the passive treatment system were drafted by Hedin Environmental in 2011.

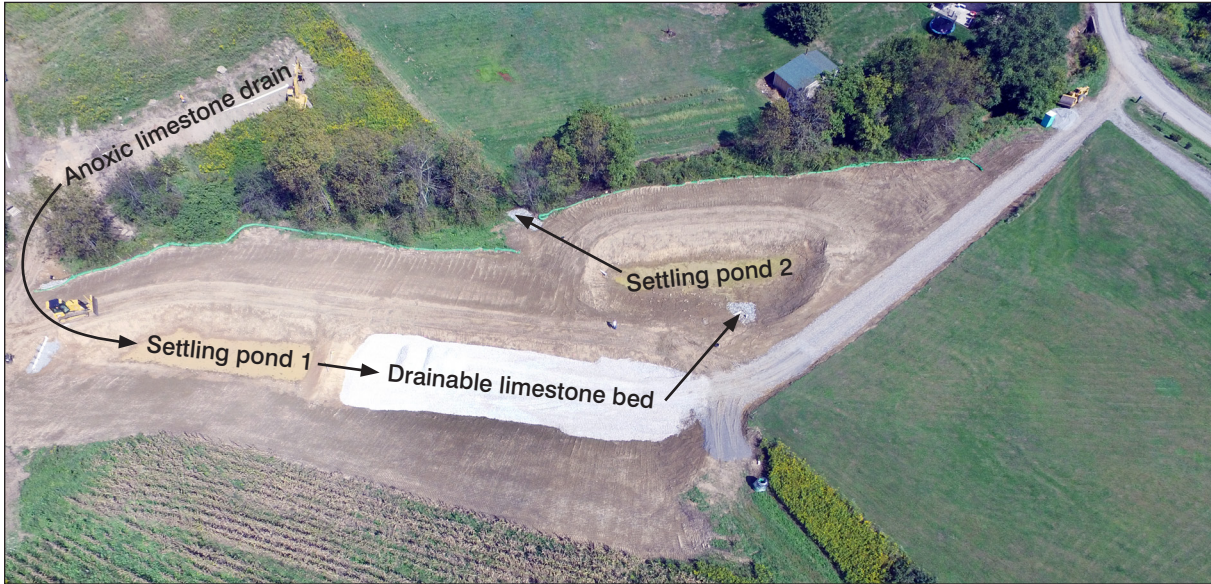
Sewickley Creek Watershed Association (SCWA) used the previously drafted plans to implement the construction of the treatment system. The Westmoreland Conservation District provided technical assistance and project management for this project. Funds were acquired from a Growing Greener grant to install the passive treatment system and monitor the finished result for one year.

The system consists of an anoxic limestone drain, a settling pond and wetland, a drainable limestone bed, and a final settling pond before flowing into an unnamed tributary (UNT) of Andrews Run. All the individual parts to the system lower the acidity of the AMD discharge and retain solids before the clean water enters the UNT.

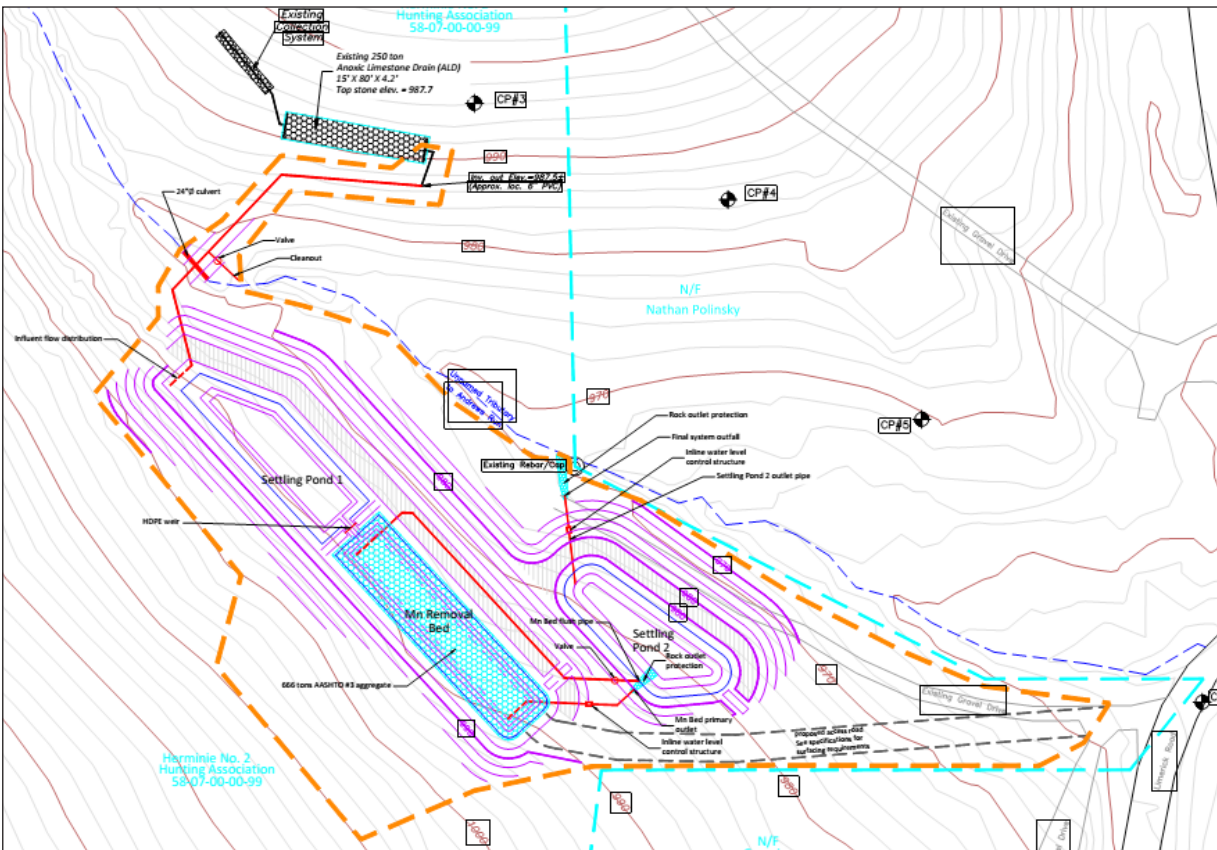
Benefits

Where before there was a source of untreated AMD drainage polluting Andrews Run, there is now a successful passive treatment system that is draining clean water into the tributary. An estimate of 34 pounds of iron and 46 pounds of manganese are removed from the water daily.

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Aerial photo of passive treatment system



Design plans of passive treatment system

Andrews Run Abandoned Mine Drainage (AMD) Passive Treatment System



Site before any construction



Site after passive treatment system was completed

Andrews Run Abandoned Mine Drainage (AMD) Passive Treatment System



*Influent trough and settling pond 1
directly after construction*



*Influent trough and settling pond 1
about five months after construction*



Settling pond 2 directly after construction



Settling pond 2 about five months after construction