Penn Hills #2 Passive Treatment System
SRI O&M TAG Project #35 Request #2
OSM PTS ID: PA-132

Requesting Organization:	Blacklick Creek Watershed Association
Receiving Stream:	Two Lick Creek
Watershed:	Blacklick Creek
Municipality/County:	Center Twp., Indiana Co.
Latitude/Longitude:	40° 38’15" N/ 79°2'16" W

The Penn Hills #2 passive treatment system was constructed in 2002 to treat an abandoned underground mine discharge in Center Township, Indiana County, PA. The Penn Hills #2 mine discharge is split between three Vertical Flow Reactors (VFRs) or Vertical Flow Ponds (VFPs). Often in the past, the three VFRs were named by the Blacklick Creek Watershed Association (BCWA) as if they were separate treatment systems and were called Penn Hills A, B, and C systems or Penn Hills 1, 2A, and 2B systems. There are two separate final effluent point locations which discharge into the Two Lick Creek reservoir.

In March 2017, SRI received a new request for technical assistance at the Penn Hills #2 treatment system. Previous maintenance was conducted through the O&M TAG program in 2015. The BCWA reported that the AMD Collection Pond (aka forebay) was overflowing and a large portion of the water was bypassing the system. The BCWA provided a photo which showed the inlet of a pipe sticking out of the water.

In May 2017, BioMost, Inc. mobilized to the site to address the issue. The flow splitter box was inspected and iron solids accumulating within the splitter were removed. The pipe extension sticking out of the water was believed to be part of the conveyance pipe to the splitter box and was removed for the purpose of lowering the water level in the pond. This caused additional flow to bypass the system, which indicated that the pipe must be an overflow pipe and that the conveyance pipe to the system must be plugged and located somewhere else. Further investigation was needed. The collection pond was pumped down to reveal the conveyance pipe which was plugged. This pipe was cleaned and a tee was installed to help reduce debris entering the pipe and provide two entry points which should help prevent the problem occurring in the future. Concrete blocks were placed on top of the overflow pipe to prevent floating. Flow to the system was restored. In addition, the access road was repaired where erosion had occurred when flow was bypassing the system.

Stream Restoration Inc. and BioMost, Inc. would like to thank the Blacklick Creek Watershed Association for their volunteer time and support in maintaining the Penn Hills passive treatment system, and the PA DEP Growing Greener program for providing the funding to make much needed maintenance activities possible.

Top Left: AMD was overtopping the berm of the collection pond due to the conveyance pipe being plugged and the emergency overflow pipe detached and floating.
Top Right: Once the collection pond outlet pipe was located and cleaned, a Tee was installed to reduce debris entering the pipe and provide two points of entry.
Bottom Left: Concrete blocks were placed on the outlet pipe to keep it from floating.
Bottom Right: Repairs to the access road were necessary due to increased flow overflowing the pond.