Laurel Run #2 Passive Treatment System
SRI O&M TAG Project #38 Request #1
OSM PTS ID: PA-191

Requesting Organization:	Blacklick Creek Watershed Association
Receiving Stream:	Laurel Run
Watershed:	Blacklick Creek
Municipality/County:	Center Twp., Indiana Co.
Latitude/ Longitude:	40° 29’39.0012" N / 79°7'18.9984" W

In 2005, the Laurel Run #2 passive treatment system (LR2) was constructed to treat an abandoned mine discharge in Center Township, Indiana County, PA. The treatment system is located near the headwaters of Laurel Run on private property. The passive system was designed by L. Robert Kimball and consists of dual Vertical Flow Reactors (VFR), a settling pond, and a polishing wetland. The Blacklick Creek Watershed Association (BCWA) has monitored and maintained the system since its creation.

In April 2015, Stream Restoration Inc. (SRI) was contacted by Dennis Remy of the Blacklick Creek Watershed Association (BCWA) concerning excess vegetation and debris within the LR2 wetland that was causing the water to back up and flow out of the emergency spillway thus bypassing the rest of the treatment system. On 6/25/15 BioMost Inc. (BMI) performed work on site to restore proper flow through the system. A mini excavator was used to remove significant amounts of vegetation growing in the system.

After removal of a large portion of vegetation, proper flow paths were re-established between the settling pond and polishing wetland. Due to the age of the system and the small amount of drop available at the site, the polishing wetlands had also developed a large amount of vegetation. Usually it would be advisable to keep as much vegetation in the wetland as possible, but in this case the possibility of short-circuiting made it necessary to remove a portion of the wetland plants and substrate from the ponds. Vegetation was removed from as much of the wetland as possible, given the reach ability of the mini excavator. This was performed from each side of the bank to allow as much future settling capacity to be developed within the wetlands as possible.

Top Left: Water was short circuiting and exiting the emergency spillway due to a buildup of vegetation.
Top Right: The spillway between the settling pond and polishing wetland was cleared of vegetation, allowing flow to remain in the system.
Bottom: Vegetation was removed from the polishing wetland to maintain flow through the entire system.