

Big Run #2 Passive Treatment System
SRI O&M TAG Project # 18 Request #1
OSM PTS ID: PA-17

Requesting Organization: Blackleggs Creek Watershed Association (in-kind partner)
Receiving Stream: Big Run (Blackleggs Creek Watershed)
Hydrologic Order: Big Run→Blackleggs Creek→Kiskiminetas River→
Allegheny River→Ohio River
Municipality/County: Conemaugh Township, Indiana County
Latitude/Longitude: 40°32'53.9988"N / 79°24'56.9988"W
Construction Year: 2004

On 10/19/12, Art Grguric from the Blackleggs Creek Watershed Association (BCWA) contacted Stream Restoration Incorporated (SRI) regarding the Big Run #2 Passive Treatment System. The system, constructed ca. 2004, consists of a flushable pond, containing 5,000 tons of limestone aggregate, followed by an aerobic wetland. Art reported that iron and aluminum solids were coating/clogging the stone and that the solids will need to be removed in the future to sustain system performance. He was interested in learning more about the FlipScreen or other techniques and options, which were discussed during the phone conversation. As frequent site inspections by the BCWA were to continue and as this system was to be included in the Kiski-Conemaugh Basin Treatment System O&M Assessment, being completed for the Foundation for PA Watersheds, the decision was to schedule a site visit at a later date. In November 2013, SRI was invited to participate in a field meeting to discuss future O&M of the BCWA systems especially Big Run #2, #3, #7, and #8. System design consultant, Skelly & Loy presented options, costs, etc. to the group. In June 2014, SRI and BioMost, Inc. (BMI) were contacted to meet with BCWA regarding future O&M and submission of an ACT13 grant application. At the 7/3/14 field meeting, all of the Big Run treatment systems were visited. The limestone aggregate in the Big Run #2 PTS had been stirred and a flow distribution pipe was installed to discourage short-circuiting. The water level in the limestone bed is being controlled by an Agridrain box. In order to flush the bed, however, all of the stop logs need to be removed. To reduce the effort to flush the bed, this box could be replaced with a valve. It might also be possible to install a siphon or SmartDrain to allow for more frequent flushing without the need of being present. The BCWA has received ACT 13 funds to conduct maintenance at their sites and have hired BMI as a consultant for the grant.

The project team thanks the Blackleggs Creek Watershed Association for all of their efforts including support and assistance. Funding for technical assistance and maintenance was provided by the PA DEP's Growing Greener and the Foundation for Pennsylvania Watersheds grant programs and in-kind services by project partners.



The Big Run #2 Passive Treatment System limestone bed had become clogged with iron and aluminum solids (*top left & right*). Art Grguric of Blackleggs Creek Watershed Association cleaned the limestone aggregate (*middle left*) and installed a flow distribution pipe (*middle right*). Art regularly flushes the bed by removing stop-logs from the Agridrain flow control box (*left*). To reduce maintenance, retrofitting the outlet with a valve, siphon or Agridrain SmartDrain, etc. may be a consideration.