Oven Run A Passive Treatment System
SRI O&M TAG Project # 11 Request #1
OSM PTS ID: PA-77

Requesting Organization:	Somerset County Conservation District (in-kind partner)
Receiving Stream:	Oven Run (Oven Run Watershed)
Hydrologic Order:	Oven Run→Stonycreek River→Conemaugh River→ Kiskiminetas River→Allegheny River→Ohio River
Municipality/County:	Shade Township, Somerset County
Latitude/Longitude:	40°06'06.0012"N / 78°54'47.0016"W
Construction Year:	2003

On 2/7/12, SRI received an email request for assistance from Greg Shustrick of the Somerset County Conservation District regarding the Oven Run A Passive Treatment System. As the system was located in the Kiski-Conemaugh River Basin, a decision was made to evaluate the system through the GenOn funded project. On 11/20/12, Cliff Denholm met onsite with Greg, who provided important information about the passive system. Oven Run A was constructed in 2001 or 2002 and was designed to treat 200 to 300 gpm. The system consists of a dam and stream intake, which is designed to capture and pipe a portion of Oven Run about 800 to 900 feet to the treatment system, which consists of a number of components in series including SAPS, settling basins, and wetlands. Based on available water quality data, the passive system effluent has been typically net-alkaline with low concentrations of metals. The portion of the stream flow that is treated, however, compared to that bypassing the system is not typically evaluated. At the time of the site investigations on 11/20/12 and 10/2/13, most of the water was by-passing the treatment system. It is suspected that either the intake structure and/or the conveyance pipe had become plugged with debris, sediment, and possibly even low-pH iron-bearing solids. The area in front of the dam appeared to be shallow and significantly filled with sediment and debris, which could also decrease the amount of water able to enter the intake. The wood cover of the intake system was also observed to be weak and rotting and in need of replacement. During the initial site visit the following recommendations were made:

- Clean sediment and debris from in-take structure.
- Replace the cover on the in-take structure for safety considerations.
- Clean conveyance pipe with a power snake, water-jetter, or similar equipment.
- Consider removing sediment and deepening the area in front of the dam.
- In the future, evaluate and consider moving the in-take closer to the system if possible. (Landowners, elevation change, construction conditions, etc. may be potential issues preventing relocation.)
- Potentially increase the height of the dam.
- Re-evaluate the system after water is returned to the system.

In 2014, the SCCD received $704,000 grant to address O&M issues within the Oven Run Watershed. At this site, the SCCD has cleaned debris from the in-take box and installed a grate to reduce debris entering the box. Flow rates have since increased to over 100 gpm. Additional work may be completed in the future. The project team thanks the Somerset County Conservation District for all of their efforts including support and assistance.

At the Oven Run A Passive Treatment System, a stream in-take structure *(top left)* was built to divert up to 200 to 300 gpm of the stream to the passive system, but the flow rate entering the treatment system was significantly less, which may be in response to several issues. It is possible, that the conveyance pipe from the intake to the system is plugged and needs to be cleaned by a power-snake, water-jetter, etc. Several cleanout manholes can be utilized to provide access to the conveyance pipe. A build-up of sediment and debris in front of the dam *(top right)* may be limiting the flow entering the in-take. In addition, the sediment and debris inside the in-take structure *(bottom left)* may also be limiting the flow into the system. Also consider replacing the compromised wooden covers on the in-take structure *(bottom right)* as part of general site maintenance and safety.