

Oven Run F Passive Treatment System
SRI O&M TAG Project # 12 Request #1
OSM PTS ID: PA-78

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°08'03.9984"N / 78°55'30.0000" W
Construction Year: 2000

On 2/7/12, SRI received an email request for assistance from Greg Shustrick of the Somerset County Conservation District regarding the Oven Run F Passive Treatment System. As the system was located in the Kiski-Connemaugh River Basin, the decision was made to evaluate the system through the GenOn funded project. On 11/20/12, Cliff Denholm met with Greg to learn more about the system. Oven Run F, also known as Hawk View, was constructed in 2000 and was reportedly designed to treat about 350 gpm. The treatment system consists of 2 SAPS and 2 settling ponds alternating in series. According to Greg, the system functioned fairly well and has been flushed on a quarterly basis for the previous 2 years. Greg noted that the water quality seems to be improving over the last 2 years as a result of the regular flushing. Greg was primarily concerned that the treatment media and/or piping system within the SAPS are possibly becoming plugged as the time to completely flush the ponds was taking about 2-3 days. He was wondering if there was a need to replace the media; however, he noted that he had not observed flow through the SAPS emergency spillways. Based on this initial field visit the following preliminary recommendations were made:

- Continue to completely flush the system on a quarterly basis,
- Continue monitoring the system, and
- If treatment begins to decline or permeability decreases within the system, first try to back-flush or stir the treatment media before replacing the media.

After the initial field visit was completed, a quick review of available data did appear to show some improvement in water quality especially in terms of pH, alkalinity, and acidity since the flushing began. The data also suggested, however, that a much lower flow rate was entering the system than the design flow of 350 gpm, including a flow of 26 gpm in January 2013 and 73 gpm in April of 2012, which are both typically higher flow periods, especially when compared to the influent flow rate of 125 gpm measured in September of 2009, which is typically a lower flow period. There were no effluent flow measurements provided on these dates to compare to the influent flow rates, but the average flow rate of the effluent from all available data was about 200 gpm. On 10/2/13, the site was revisited and a large source of water was found to be flowing in a channel between SAP2 and Settling Pond 2 that did not enter the system. It was uncertain if the water had been flowing there during the initial site visit. The water was traced back to the source which was a pipe in close proximity to the influent pipe and believed to be either an overflow or by-pass pipe. The SCCD was contacted to report this finding. In 2014, the SCCD received \$704,000 grant to address O&M issues within the Oven Run Watershed including making repairs to the system. To date, a clogged pipe and a gate valve at the inlet has been fixed which has increased flow to the system. Additional work is to be completed. The project team thanks the Somerset County Conservation District for all of their efforts including support and assistance.



During the initial site visit on 11/20/12, the Oven Run F Passive Treatment System (*top left and right*) appeared to be functioning well. Greg Shustrick expressed concerns about the media becoming plugged; however, there were no obvious signs of decreased water treatment or water overtopping the berms. After reviewing available water quality data, BMI revisited the site to further investigate the apparent reduction in effluent flow rates. During the site visit, mine water was found to be flowing in a channel between SAPS2 and Settling Pond 2 (*bottom left*). The water was traced (*bottom right*) to the source, which was a pipe located near the influent pipe. This was believed to be an overflow or by-pass pipe. The Somerset County Conservation District was contacted and they have since acquired funding to complete repair work.