

Minersville Passive Treatment System
SRI O&M TAG Project #68 Request #1
OSM PTS ID: PA-172

Requesting Organization: Huntingdon County Conservation District (in-kind partner)

Requesting Organization Representative: Celina Seftas

Municipality/County: Saxton, Huntingdon County

Dates of Work Performed: 10/01/2020 to 10/05/2020

Construction Sub-Contractor: Earth Shapers, LLC

Initial Request: On 11/12/2019, during the site investigation for the Miller Run #1 request, the Huntingdon County Conservation District (HCCD) requested assistance for the Minersville passive system. HCCD reported that the baffles within the limestone bed are causing problems with plugging and need to be removed. According to HCCD the stone on the inlet end of the system was previously replaced, but water still backs up on top of the stone.

Background Information: The Minersville Passive Treatment System was originally constructed in 2003. The alkalinity generator for this system is a large, vertically baffled limestone bed (FeAlMn bed). This site is overseen by the HCCD.

Observations and Identified Needs: The Minersville Passive Treatment System's baffled limestone pond needed the limestone stirred/cleaned. The existing limestone bed had standing water over approximately 2/3 of the bed. It is likely that the vertical baffles were contributing to the flow being backed up over the top of the limestone. Accordingly, it was proposed to remove the baffles in an effort to restore the hydraulic function of the treatment component. Volunteer trees were also beginning to establish on some of the pond embankments of the system. Woody vegetation and tree removal was recommended. Limestone thickness within the bed was estimated to be approximately 8 feet.

Work Completed:

- Limestone was stirred/ cleaned, and mine drainage precipitates were pumped to a subsequent settling pond within the treatment system.
- Inlet header pipe perforations were cleaned.
- Existing baffles were removed from the treatment system and disposed of.
- Open trenches were left in the cleaned stone to serve as infiltration zones when the limestone gradually becomes clogged in the future so the bed can still function sequentially.
- Volunteer woody vegetation was removed from the embankments of the treatment system components as needed.

Recommendations & Future Considerations:

The exact locations and functionality of the outlet pipes were undetermined during this maintenance effort. When future work or a larger rehab project is required at this site, it is recommended to restructure or replace the outlet piping from this first component. It is recommended to conduct post-maintenance water monitoring to determine the effectiveness. If the treatment performance still does not meet expectations, this would initiate the need for a system re-design. A possible option for the site re-design would be a solar powered auto-flusher (if the site-specific elevations would accommodate that approach). A conceptual design and budgetary cost estimate would need to be prepared to aid in obtaining the necessary grant funding to rehabilitate the system.

Photo Log



Top Left: Washing and removing limestone from the Minersville limestone bed.
Top Right: After limestone and internal baffles had been removed.
Bottom: Cleaned limestone was placed back in the bed and infiltration trenches