

McIntire Passive Treatment System
SRI O&M TAG Project #70 Request #2
OSM PTS ID: PA-249

Requesting Organization: Slippery Rock Watershed Coalition

Requesting Organization Representative: Cliff Denholm

Dates of work performed: 2/1/2024-3/7/2024

Initial Request: The Slippery Rock Watershed Coalition (SRWC) requested assistance for the McIntire passive treatment system. The SRWC reported several issues at the site including:

- The JVFP outlet channel was becoming clogged with vegetation and debris.
- Overtopping concerns within portions of the TIF.
- Baffle curtain detached in Settling Pond.

Work Completed: BioMost personnel performed the following maintenance and site characterizations:

- Removal of vegetation and iron solids from OPC and de-channelized flow paths.
- Increased height of OPC embankment as needed as preventative maintenance.
- Washed AFVFP limestone and cleared sediment from underdrain pipes.
- Troubleshoot AFVFP valve/solar controller functionality.
- Dredged SP Inlet sediment to prevent pipe clogging and improve retention time.
- Re-attached western Settling Pond baffle curtain line and installed new post; New rope installed on east end of baffle curtain.
- Cleared sediment from JVFP outlet channel to Wetland A.
- Cleared vegetation as needed from SB1 embankment.
- Removed various pipes and materials previously left on site.
- Deposited stored oxides on site in Settling Pond.
- Water sampling after completion of maintenance.

Field sampling on 3/5/2024

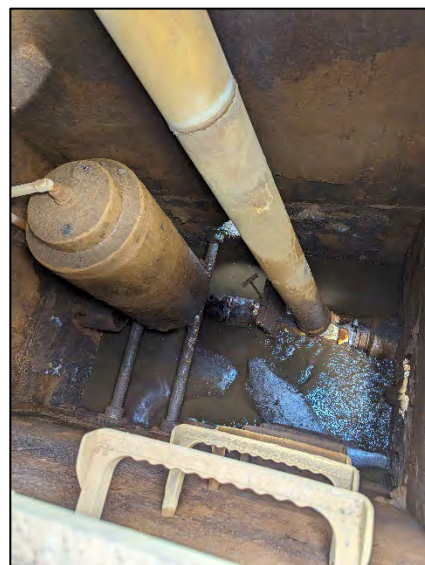
Sample Point	Time	pH	Alkalinity	Flow
Wetland 2 Out	14:43	7.1	54	5
SB1	15:01	7.5	100	17

Recommendations & Future Considerations: On-going water monitoring and site inspections should continue. It was noted that the Jennings Vertical Flow Pond had flow through the overflow pipe periodically, typically observed in the morning with flushes of the AFVFP scheduled from 5 to 6 PM. This could indicate a reduction in media permeability which should be considered for future maintenance and improvements. However, current water quality at the end of the wetlands and at the system outlet indicate excellent treatment and buffering capacity is being added to the stream.

Photo Log



- Top Left:** Replacement of baffle curtain rope and western post (2/1/24).
Top Right: AFVFP stone washing (2/6/24).
Bottom Left: Troubleshooting the AFVFP solar powered valve (2/2/24).
Bottom Right: OPC after leveling and removal of sediment and vegetation (3/5/24).



Top Left: OPC embankment fortified and raised as needed (2/13/24).
Top Right: AFVFP siphon vault during maintenance; Note sludge depth below inlets from pond (2/8/24).
Bottom: OPC with improved flow distribution, Settling Pond, and JVFP pictured (3/5/24).