

MR7 Phase 2 Construction Project Summary
C990000636
Clearfield County Conservation District

Project Description

The MR7 discharge complex is composed of the MR7 Prime, Steve’s Spring, Pit Spring, and North Culvert discharges. Together, these discharges are the top contributor of AMD pollution to the Morgan Run watershed. This phase of the project entailed the construction of passive treatment cells to remediate the North Culvert and Pit Spring discharges through the construction of 2 drainable limestone beds, 1 flush pond, and 1 polishing pond. Project Timeframe: 12/11/2018 – 12/31/2023.

Project Goals

To reduce the metal and acidity loading to the watershed caused by the MR7 discharge complex and generate excess alkalinity to restore the Morgan Run watershed.

Project Results

The North Culvert and Pit Spring passive treatment systems consist of separate drainable limestone beds that flush to the same flush pond once a week. The footprint of the final polishing pond needed in the treatment train for the MR7 Prime discharge was also installed. Construction of the treatment cells to remediate the MR7 Prime and Steve’s Spring discharges will take place in the next phase of the project using AML/AMD Grant funding. Combined, treatment of the North Culvert and Pit Spring discharges is removing 0.05 lbs/day of iron, 4.84 lbs/day of aluminum, 1.19 lbs/day of manganese, 68.73 lbs/day of acidity and generating 22.26 lbs/day of alkalinity.

Parameter	North Culvert Pre-Treatment	North Culvert Post Treatment	Pit Spring Pre-Treatment	Pit Spring Post Treatment
pH	3.84	6.64	3.92	7.33
Alkalinity mg/L	<0.1	89.4	<0.1	107.74
Acidity mg/L	117.68	-70.16	90.91	-87.28
Iron mg/L	0.42	<0.1	<0.1	<0.1
Aluminum mg/L	10.48	<0.1	8.87	<0.1
Manganese mg/L	2.15	0.63	2.41	0.04



Project Costs

\$947,493 Growing Greener, \$100,000 Office of Surface Mining Watershed Cooperative Agreement Program, \$20,000 Foundation for Pennsylvania Watersheds

Lessons Learned

Construction delays = increased project costs, regardless of the cause.

Partners

Clearfield County Conservation District, Trout Unlimited, Foundation for Pennsylvania Watersheds, Office of Surface Mining, Hedin Environmental. TP Contracting was the contractor.

Contact Information

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