

Restoration of Upper Scrubgrass Creek, Phase II
Growing Greener Watershed Protection Project #160150
Sponsor: Scrubgrass Creek Watershed Association

Project Description Upper Scrubgrass Creek is polluted with acid mine drainage flowing from abandoned surface mines. Phase I installed a passive treatment system on the largest source of pollution. This project installed a passive system on the 2nd largest source, US-91. The system treats low pH, Al-contaminated water with a 1000 ton drainable limestone bed followed by a settling pond. The project also replaced a major culvert that carries Upper Scrubgrass Creek under an access road that connects to the Phase I project.

Project Goals The goals were to: 1) eliminate this source of acidic Al-contaminated pollution, and 2) protect the access road that was in danger of being washed out.

Project Results The average performance of the US-91 passive system is shown below. The plugged culvert was replaced with a properly designed and permitted culvert that will protect the access road.

US-91 Inflow to USC	Pre-Project to USC	Post-Project to USC
pH	3.4	7.5
alkalinity, mg/L CaCO ₃	0	141
acidity, mg/L CaCO ₃	200	-114
Al, mg/L	23.5	0.1
Fe, mg/L	2.3	0.2
Mn, mg/L	7.0	0.2

Drainable Limestone Bed



New Culvert



Project Costs \$187,418 Growing Greener Grant

Lessons Learned Working within the existing abandoned mine features reduced costs and pleased the landowner.

Partners Scrubgrass Creek Watershed Association; Venango County Conservation District; Foundation for PA Watersheds

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