



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2003PA16B

Title: Development of Passive Treatment System Monitoring and Research Program

Project Type: Education

Focus Categories: Non Point Pollution, Water Quality, Ecology

Keywords: passive treatment, wetlands, acid mine drainage, restoration

Start Date: 03/01/2003

End Date: 02/29/2004

Federal Funds: \$14970.00

Matching Funds: \$45860.00

Congressional District: 21st of PA, 4th of PA

Principal Investigators: Brenner, Fred; Dunn, Margaret

Abstract: Stream Restoration Inc. and Grove City College propose to develop a training program to monitor passive treatment systems and receiving streams in the headwaters of Slippery Rock Creek. Since 1995, a public-private partnership effort consisting of non-profit corporations, colleges and universities, private industries, and governmental agencies have cooperated in the restoration of the 27-sq. mi. headwater area of the Slippery Rock Creek Watershed. The quality of the headwaters was documented in 1970 by Operation Scarlift to be heavily impacted by abandoned mine drainage. To date, 15 passive treatment systems have been constructed within the project area including every major type of component, such as vertical flow ponds, aerobic wetlands, anoxic limestone drains, open limestone channels, and horizontal flow limestone beds. Even though the passive systems are low maintenance, periodic inspection and monitoring will help insure the timely resolution of minor maintenance issues before larger problems develop. In addition, decreasing effectiveness in water treatment will also be documented in order to improve the design of future passive systems. This program will continue the extremely important outreach and educational opportunities to students and interns, vital not only to the professional growth of individual students but also to sustaining the watershed restoration concept.

[U.S. Department of the Interior, U.S. Geological Survey](#)

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