

**Stream Management, Stream Restoration and
Riparian Management Education Program**

2002

Wildlands Conservancy

Funding Provided By:
Pa. Department of Environmental Protection
Environmental Stewardship and
Watershed Protection Grant Program

INTRODUCTION

In April 2000, Wildlands Conservancy received a grant from the Pennsylvania Department of Environmental Protection's Environmental Stewardship and Watershed Protection Grant Program in the amount of \$ 15,098.00 to conduct "The Stream Management, Stream Restoration and Riparian Management Education Program." This program was designed to educate municipal officials, watershed associations and the general public about the benefits obtained through the implementation of Best Management Practices (BMP) as well as provide technical assistance with watershed related issues. Through its previous work in the Lehigh River watershed, Wildlands Conservancy encountered a local watershed community requesting consultation and assistance. This program formalized the assistance that Wildlands Conservancy had provided to the watershed community in the past.

In addition to Wildlands Conservancy's ability to offer technical assistance to the watershed community, this program allowed for the creation of specific educational tools. These tools included an educational brochure, web-site improvements and an informational display. The project also allowed Wildlands Conservancy to conduct watershed tours/field trips and educational presentations for groups and individuals to demonstrate implemented BMPs and stream restoration techniques.

BACKGROUND

Wildlands Conservancy focused this program, similar to many of its activities, on the Lehigh River watershed. The Lehigh River is approximately 103 miles long and drains an area of 1,363 square miles in eastern Pennsylvania. The Lehigh River is a major tributary of the Delaware River. The watershed encompasses parts of ten counties including, Pike, Wayne, Monroe, Luzerne, Lakawanna, Carbon, Schuylkill, Berks, Lehigh and Northampton. The headwaters of the Lehigh River are located at Lehigh Marshes just north of Gouldsboro, Pa. The mouth of the river is located in the city of Easton, Northampton County. Through the course of this program, Wildlands Conservancy estimates that it has provided either technical assistance or educational opportunities in at least eight of the ten counties that make up the Lehigh River watershed

The upper reaches of the Lehigh River, from the headwaters to the Pa. Route 903 bridge, is classified by Pa. DEP as a High Quality-Cold Water Fishery (HQ-CWF). South of Pa. Route 903 to the Allentown Dam, the main stem of the river is classified as a trout-stocked fishery (TSF); and from the Allentown Dam to the Lehigh's confluence with the Delaware River, the main stem is classified as a warm water fishery (WWF).

PROJECT DELIVERABLES

Educational Brochure

Through this program, Wildlands Conservancy wanted to address many watershed issues with as large a portion of the local watershed community as possible. In order to accomplish this goal, Wildlands Conservancy wanted to take advantage of the frequent contact already taking place between the local stakeholders of the watershed community and Wildlands Conservancy at various events, presentations, and other occasions. Wildlands Conservancy decided that one of the best ways to distribute information to the local audience was through an educational brochure that could be handed out by hand or mailed to interested parties at the appropriate time.

In May 2001, Wildlands Conservancy received its completed educational brochure entitled “Protecting Our Watershed-Restoring Streams with Riparian Buffers.” The brochure has been made available to municipalities, watershed organizations, corporations, private landowners, and visitors of Wildlands Conservancy’s Pool Wildlife Sanctuary. The brochure contains recommendations about Best Management Practices, stream restoration techniques, and riparian buffers for streamside landowners. The brochure also contains a list of native vegetation recommended for riparian plantings and sources of additional information regarding riparian buffers. A copy of this brochure is located in Appendix A.

Wildlands Conservancy printed 5,000 copies of the Educational Brochure and to date has distributed approximately 2,500 of them. Wildlands Conservancy will continue to distribute these brochures and utilize it in conjunction with the Best Management Practices Display.

Best Management Practices Display

Wildlands Conservancy created a display about Best Management Practices and stream restoration to be used in conjunction with the Educational Brochure. Utilizing these two tools together with one another allows Wildlands Conservancy the opportunity to provide information to interested watershed stewards and answer any possible questions face-to-face, while also providing a small resource tool that each person can take and refer to later.

In August 2001, Wildlands Conservancy completed the design of the Best Management Practices display, received the display board and logo as well as all of the necessary photographs and display text. The display offers multiple design possibilities focusing on the application of Best Management Practices, riparian buffer installation, and appropriate stream restoration techniques.

The display is being used in conjunction with the educational brochure to provide a thorough explanation of proper streamside land management and watershed stewardship to members of the watershed community. Wildlands Conservancy has utilized the display at approximately a dozen Conservancy events and fund-raisers as well as educational presentations, meetings, trade shows, environmental festivals, and other presentation opportunities to date. In total, approximately 1,000 people have been exposed to the message of the Best Management Practices Display.



Figure 1. Wildlands Conservancy has utilized the Best Management Practices Display to educate municipalities, watershed organizations, and the general watershed community at a number of shows and events

Web-site Enhancements

In order to reach a wider audience, Wildlands Conservancy knew it had to put more information on its existing web-site. In addition to information about Best Management Practices and stream restoration, Wildlands Conservancy's Web-site Enhancements are great research tools for the watershed community.

In February 2002, Wildlands Conservancy completed enhancements to its existing web-site to provide additional information to the watershed community about proper streamside maintenance, Best Management Practices, and stream restoration techniques. The web-site provides an issue-based approach to all of the areas that Wildlands Conservancy's Rivers Program addresses through various projects. Most importantly, the web-site enhancements provide the watershed community with possible avenues of action and links to other related programs and agencies involved with similar issues.

The enhancements to the current Wildlands Conservancy web-site can be viewed on-line at www.wildlandspa.org/programs/rivers. With these enhancements to its web-site, Wildlands Conservancy has more than doubled the amount of information available on its web-site for municipalities, landowners and other members of the watershed community. Approximately 55,000 people visited and searched Wildlands Conservancy's web-site in the past year. Samples of the pages of the web-site have been printed out and are located in Appendix B.

Technical Guidance and Assistance

Wildlands Conservancy has gained and continues to gain knowledge and expertise regarding stream restoration activities and the implementation of riparian buffers and Best Management Practices in general through its many activities throughout the Lehigh River Watershed. In order to better utilize this knowledge, Wildlands Conservancy developed this program to provide technical guidance and assistance to municipalities, watershed organizations and private landowners upon request. In addition, in order to hopefully raise awareness about watershed issues, Wildlands Conservancy has invested a great deal of time providing educational presentations and field trips to school groups, watershed organizations and agency officials.

Wildlands Conservancy believes these services have raised awareness about watershed issues, but also raised the environmental conscience of the Lehigh River watershed. Municipalities, watershed organizations, school groups and private landowners alike have increasingly sought Wildlands Conservancy's technical assistance managing their streamside properties, developing native plant planting schemes, removing invasive vegetation, planning or permitting stream restoration projects or simply designing or enhancing educational opportunities. In total through the funding provided by this program, Wildlands Conservancy provided technical assistance to 39 individuals/groups within the Lehigh River watershed during the grant period. Wildlands Conservancy provided 6 educational presentations within the Lehigh River watershed during the grant period. A list and some sample letters requesting or acknowledging assistance or programs are located in Appendix C.

CONCLUSION

In April 2000, Wildlands Conservancy received a grant from the Pennsylvania Department of Environmental Protection's Environmental Stewardship and Watershed Protection Grant Program in the amount of \$ 15,098.00 to conduct "The Stream Management, Stream Restoration and Riparian Management Education Program." This program was designed to educate municipal officials, watershed associations and the general public about the benefits obtained through the implementation of Best Management Practices (BMP) as well as provide technical assistance with watershed related issues.

This program has allowed Wildlands Conservancy to assist the watershed community in developing, planning, permitting, and implementing various watershed-related projects throughout the Lehigh River watershed. In addition, this program has allowed Wildlands Conservancy to provide educational opportunities to the watershed community through a variety of outlets, such as its technical assistance, educational presentations, the Educational Brochure, the Best Management Practices Display and the Web-site Enhancements. All of these tools have created a more environmentally aware watershed community as well as improved projects throughout the Lehigh River watershed.

Appendix A
Educational Brochure

Appendix B

Sample Web-site Pages

Appendix C

Detail of Technical Assistance With Sample Letters

Wildlands Conservancy has provided technical guidance and assistance to the following municipalities, agencies, watershed organizations, educational institutions and landowners throughout the Lehigh River watershed:

Private Landowner (Mr. Ron Sotak); 7/8/99 – provided BMPs and riparian buffer recommendations.

Park Place Homeowners Association; 9/14/99 – BMPs and riparian buffer recommendations.

Private Landowners (Mr. and Mrs. Steve Madigan); 10/4/99 – assistance permitting a stream restoration project.

Private Landowner (Ms. Loretta Conway); 11/2/99 – assistance planting native vegetation along stream bank.

Delaware Riverkeeper Network; 1/31/00 – reviewed Growing Greener application for a stream restoration project and provided letter of support.

Lower Macungie Township; 2/1/00 – reviewed Growing Greener application for a stream restoration project and provided letter of support.

Manheim Township; 4/5/00 – provided information requested during an educational presentation.

Herbert, Rowland & Grubic Inc.; 4/5/00 – provided information requested during an educational presentation.

City of Allentown; 5/8/00 – provided assistance developing an erosion and sedimentation control plan for stream restoration project.

Hanover Township; 5/10/00 – reviewed a funding proposal and provided letter of support.

North Whitehall Township; 5/24/00 – conducted site visit for a project on the Coplay Creek and supplied requested copy of Growing Greener proposal.

City of Allentown; 6/1/00 – reviewed a Growing Greener proposal for a stream restoration project and provided a letter of support.

Whitehall Township; 6/16/00 – assisted with the implementation of a stream restoration project on the Coplay Creek.

Borough of Bath; 8/4/00 – conducted a site visit and provided technical assistance with flooding issues.

Private Landowner (Ms. Monica Gavin); 8/22/00 – provided information about the benefits of riparian buffers.

Private Landowner (Mr. Keith Slusaw); 8/31/00 – provided assistance designing, permitting and implementing a stream restoration/riparian buffer project.

South Whitehall Township; 9/11/00 – conducted a site visit and provided technical assistance regarding a stream restoration project.

Whitehall Township; 9/20/00 – conducted a site visit and provided technical assistance for a park footbridge installation and stream bank project.

Kovatch Corporation; 9/29/00 – provided a sample landowner agreement for a stream restoration project.

North Whitehall Township; 10/31/00 – provided materials and technical assistance with a stream restoration project along the Ironton Rail-Trail.

Borough of Bath; 11/2/00 – provided input for a funding proposal to acquire land along the Monocacy Creek and provided a letter of support.

Whitehall Township; 11/20/00 – assisted the township, local Boy Scout troop and the EAC implementing a stream restoration project on the Coplay Creek.

Collegetown Borough; 1/9/01 – supplied information about one of Wildlands Conservancy's stream restoration projects as reference material.

North Whitehall Township; 2/21/01 – provided technical assistance planning stream restoration activities to be incorporated into a bridge replacement project.

Carbon County Conservation District; 3/20/01 – provided technical assistance with the stream restoration project at First Hollow Run.

Lehigh Valley Audubon Society; 3/23/01 – provided technical assistance with a riparian buffer implementation project along the Monocacy Creek.

Jacobsburg Environmental Education Center; 3/23/01 – provided technical assistance and created a riparian planting scheme.

Natural Lands Trust; 3/29/01 – provided technical assistance on stream restoration techniques.

Horstman Associates, Inc.; 4/3/01 – provided a tour of a completed stream restoration project along the Little Lehigh Creek.

Whitehall Township; 4/11/01 – provided technical assistance on a stream restoration project.

Pennsylvania DCNR Bureau of State Parks; 4/18/01 – provided technical assistance and materials for a riparian planting project.

Giant Food Stores; 4/19/01 – reviewed development plan and provided recommendations.

Whitehall Township; 4/26/01 – conducted site visit for a project on the Coplay Creek and provided list of recommendations and planting list.

Lehigh Valley Audubon Society; 5/1/01 – provided technical assistance on a riparian buffer implementation project.

Borough of Bath; 5/22/01 – provided technical assistance with a downtown revitalization project along the Monocacy Creek.

Heidelberg Township EAC; 6/11/01 – attended a group meeting and conducted a presentation about stream restoration projects.

Whitehall Township Boy Scout Troop 32; 6/22/01 – provided technical assistance on a stream restoration project serving as an Eagle Scout project.

Lehigh Valley Planning Commission; 7/17/01 – provided technical assistance on a stream restoration project at the Northwest Little League field.

Private Landowner (Mr. and Mrs. Peter Esherick); 8/10/01 – provided technical assistance designing and permitting a stream restoration project along the Jordan Creek.

Wildlands Conservancy provided educational presentations/field trips to the following groups/individuals in the Lehigh River watershed during the grant period:

Hokendaqua Chapter of Trout Unlimited; 11/8/00 – attended a group meeting and offered a presentation on stream restoration activities.

Pennsylvania DEP; 11/13/00 – conducted a watershed tour of Wildlands Conservancy's stream restoration projects with agency official.

Bushkill Stream Conservancy; 12/1/00 – attended the 2000 Bushkill Stream Festival to present information about BMPs and stream restoration activities.

Perkiomen Valley Chapter of Trout Unlimited; 1/4/01 – attended a group meeting and offered a presentation on stream restoration activities.

East Penn School District; 1/21/01 – conducted a presentation on water quality issues within the Lehigh River watershed.

Lehigh Valley Planning Commission; 3/15/01 – attended an Environment Committee meeting and presented a completed watershed management plan.