

PENNSYLVANIA NONPOINT SOURCE PROGRAM
FY2003 PROJECT SUMMARY

Base Program/District Staff

Project Title: Conservation District Mining Program

Project Number: 2301

Budget: \$ 125,000

Lead Agency: Western Pennsylvania Coalition for Abandoned Mine Reclamation (WPCAMR)

Location: Western Pennsylvania bituminous coal region

Point of Contact: Garry Price, BWM or Bruce Golden, Regional Coordinator, Western Pennsylvania Coalition for Abandoned Mine Reclamation

The purpose of the WPCAMR is to promote and facilitate the reclamation and remediation of abandoned mine drainage (AMD) in western Pennsylvania. Through this project the Regional Coordinator will continue to develop an education program, coordinate AMD remediation activities, generate local support for remediation efforts, and assist watershed associations and conservation districts in the development of watershed management plans and in securing funding for AMD remediation. The Watershed Coordinator will continue to assist with the development and implementation of funded projects.

Project Title: Conservation District Mining Program

Project Number: 2302

Budget: \$ 118,000

Lead Agency: Eastern Pennsylvania Coalition for Abandoned Mine Reclamation (EPCAMR)

Location: Anthracite and northern bituminous regions of Pennsylvania

Point of Contact: Garry Price, BWM or Robert Hughes, Eastern Pennsylvania Coalition for Abandoned Mine Reclamation

EPCAMR was formed to promote and facilitate the reclamation and remediation of land and water adversely affected by past coal mining practices in eastern Pennsylvania. EPCAMR is a complimentary organization to the Western Pennsylvania Coalition. The EPCAMR Regional Coordinator will continue efforts to organize watershed associations, develop an education program, coordinate AMD remediation activities, generate local support for remediation efforts, and assist watershed associations and conservation districts in the development of watershed management plans and in securing funding for AMD remediation. The AMD Watershed Outreach Coordinator, in addition to assisting in these activities, will evaluate and comment on watershed restoration plans, seek funds for long-term maintenance projects and perform biological surveys and water quality testing on streams having acid mine discharge.

Base Program/DEP Staff

Project Title: Nonpoint Source Program-Bureau of Watershed Management/Regional Offices

Project Number: 2303

Budget: \$ 1235,868

Lead Agency: Bureau of Watershed Management

Location: DEP Regional Offices/DEP Central Office

Point of Contact: Russell L. Wagner, BWM

This project will strengthen the links between Central Office Program staff and the Regional Offices and to enhance the roles of the DEP Regional Offices in the Nonpoint Source Program. The project will continue funding a total of six work years of effort for NPS activities by regional office staff in each of the six DEP Regional Offices. Any DEP regional NPS efforts above the six work years of effort will be used as part of the state match. A total of 10 work years of effort are to be provided within the Central Office to support the implementation and administration of the Section 319 NPS Implementation Program and the Citizen Volunteer Monitoring Program. The positions supporting these work years of effort include: a conservation program manager, four water pollution biologists (three existing-one proposed), a hydrogeologist, 2 conservation program specialists, a clerk typist and an administrative assistant. This project will require an additional \$248,409 in indirect costs.

Base Program

Project Title: Citizen Monitoring Program

Project Number: 2304

Budget: \$ 83,264

Lead Agency: Bureau of Watershed Management

Location: Statewide

Point of Contact: Diane Wilson, BWM

The purpose of the Citizens' Volunteer Monitoring Program is to provide the means to address both the needs of the Department and local volunteer groups for support, coordination of environmental efforts, and to create environmental alliances. The program joins overall needs of DEP for citizen gathered data with public participation by establishing cooperative, environmental partnerships. This project will promote citizen monitoring activities by maintaining a Citizens' Volunteer Monitoring database registry, developing guidelines and model "Handshake Agreements" (non-binding, non-obligatory) that clearly detail the expectations of DEP program areas and citizen groups, publication of a Volunteer Monitoring newsletter, implement a statewide "snapshot" report, train and equip 14 lake associations and provide sample analysis through DEP lab and hold various workshops. This project will require an additional \$16,736 in indirect costs.

Project Title: Statewide NPS Education Office
Project Number: 2305
Budget: \$ 175,000
Lead Agency: Pennsylvania Association of Conservation Districts (PACD)
Location: Statewide
Point of Contact: Fran Koch, BWM or Kathleen Banski, PACD

The project allows the PACD state office to continue statewide education efforts on nonpoint source issues. The intent is to generate a coordinated, unified approach through the county conservation districts to provide information to the public about the Pennsylvania Nonpoint Source Program. PACD develops information packets, brochures, a newsletter and other educational products as requested by the conservation districts and the Nonpoint Source Management Section. PACD also has an Education Subcommittee that provides recommendations.

Project Title: Technical Support
Project Number: 2306
Budget: \$ 24,600
Lead Agency: USDA Natural Resources Conservation Service (NRCS)
Location: Statewide
Point of Contact: Russ Wagner, BWM

The Section 319 Nonpoint Source Program has relied on NRCS to provide technical and engineering assistance to various project sponsors to implement different projects that are using 319 grant funds. Through this project, some project sponsors have elected to use NRCS for technical assistance and engineering services. This project assures the project sponsors that the assistance they need from NRCS will be provided. This project will require an additional \$4,945 in indirect costs. The projects are:

#2329 Brandywine/Christina Phase III \$12,600
#2330 Stonycreek GIS Priority Area \$12,000

Project Title: Stream Releaf - Restoring and Protecting Riparian Buffers in Pa
Project Number: 2307
Budget: \$ 54,000
Lead Agency: Bureau of Watershed Management
Location: Statewide
Point of Contact: Melanie Wertz, BWM

Pennsylvania has spent and continues to spend a significant amount of dollars on addressing nonpoint source pollution. One initiative that has been an effective project is riparian buffers. More than 725 miles of buffers have been installed along streamsides. Pa will continue to fund the installation of riparian forest buffers. The purpose of this project is to develop a packet of educational materials to address maintenance of buffers. Maintenance of buffers is essential to keep buffers functioning at their full potential. A key component of this would be a laminated field guide with pictures of invasive plants growing in Pa.

Project Title: Watershed Education for Pollution Prevention-II

Project Number: 2308

Budget: \$ 100,000

Lead Agency: League of Women Voters of PA-Citizen Education Fund (LWV-CEF)

Location: Statewide

Point of Contact: Fran Koch, BWM

This project continues funding of the League of Women Voters of Pennsylvania Citizen Education Fund to provide money to 10 to 12 community coalitions to undertake public education and alliance building projects focusing on mitigating or preventing pollution in degraded watersheds. An important part of these coalitions is that they must include the municipalities and that each organization receiving a grant must send a representative to the orientation/training workshop. This project will also provide support for the coalitions to complete their projects, to raise public awareness and literacy, and to facilitate action in protecting community water resources. The maximum amount for each project is \$5,000.

Project Title: Regional Geometry Curves in Pennsylvania Physiographic Regions

Project Number: 2309

Budget: \$ 49,085

Lead Agency: US Geologic Survey

Location: Statewide

Point of Contact: Fran Koch, BWM

A regional curve provides estimated channel dimensions for bankfull discharge. Because many restoration designs have a strong dependence on bankfull dimensions, correctly identifying the bankfull channel is essential to a successful design. Regional curves that incorporate unique runoff characteristics relating to different physiographic provinces are needed to support stream restoration efforts in Pennsylvania. Regional curves will employ the method described by David Rosgen. Once developed, designers can use a regional curve at an ungaged site to support or refute their selection of bankfull discharge within the applicable hydro-physiographic region. This project will require an additional \$9,866 in indirect costs.

Project Title: TMDL Watershed Restoration Plans
Project Number: 2310
Budget: \$ 467,422
Lead Agency: Bureau of Watershed Management
Location: Selected Watersheds
HUC Code: Various
State Water Plan Watershed: Yet to be determined
303 (d) Listed: yes
Point of Contact: Russell Wagner, BWM

This project is an effort to establish a mechanism to provide assistance in developing watershed restoration plans in watersheds where TMDLs have been developed. This effort will involve various local watershed associations identified in specific watersheds where TMDLs have been developed. The goal is to have local stakeholder support and input in the development of the restoration plan for the watershed which will meet the goal of addressing the TMDL and its intended reductions of the nonpoint source pollutant to be addressed. In addition to involvement of local stakeholders, there will be technical support provided through yet unselected vendors to interact with the local stakeholders to write the specific restoration plan and yet unselected vendors to provide technical support including estimated costs for best management practices selected by the local stakeholders and associated pollution reductions expected as a result of implementation of the best management practices. This project will require an additional \$93,952 in indirect costs.

National Monitoring Projects:

Project Title: Pequea/Mill Creek National Monitoring Program
Project Number: 2311
Budget: \$ 3,988
Lead Agency: US Geological Survey
Location: Pequea and Mill Creeks, Lancaster County
HUC Code: 2050306
State Water Plan Watershed: 07J, 07K
303(d) Listed: Yes
Point of Contact: Barbara Lathrop, BWM

The goal of this project is to evaluate the surface and ground water quality changes as a result of the implementation of agricultural Best Management Practices (BMPs) in carbonate zones. BMPs installed include streambank fencing. Water quality and agricultural activity is entered into NPSMS, the USEPA National Monitoring Program database. The hydrology of the basins will be characterized by intensive monitoring for 3 years prior to implementation and for 3 to 7 years after implementation of the management practices. An earlier 319 grant provided funds for stream fencing. Monitoring has been completed. The final report is being completed under this grant. This project will require an additional \$802 in indirect costs.

Project Title: Riparian Forest Buffer Monitoring Program
Project Number: 2312
Budget: \$ 65,903
Lead Agency: Stroud Research Center
Location: Brandywine Creek Watershed, Chester County
HUC Code: 2040205
State Water Plan Watershed: 03H
303(d) Listed: Yes
Point of Contact: Carl Rohr, BWM

Riparian forest buffers are increasingly recommended and advocated as a management practice that can both improve stream habitat and reduce the surface and subsurface transport of agricultural nonpoint source pollutants to streams. Although studies that quantify these reductions have been made in coastal plain watersheds, similar data are not available for upland regions. This project will continue to monitor, evaluate, and document the benefits of an experimental riparian reforestation in an agricultural watershed beyond the initial five year period after riparian forest buffer establishment.

Project Title: Swatara Creek National Monitoring Program
Project Number: 2313
Budget: \$ 131,427
Lead Agency: Schuylkill County Conservation District
Location: Swatara Creek, Schuylkill County
HUC Code: 2050305
State Water Plan Watershed: 07D
303(d) Listed: Yes
Point of Contact: Jane Earle, BWC; Ken Thomas, Pottsville District

This is the only National Monitoring Project in the country involving abandoned mine drainage (AMD) discharges. The objectives of this project are to evaluate the long-term performance of innovative passive treatment systems for neutralizing acidity and removing iron and aluminum and the long term effects on the water quality of streams in the upper Swatara Creek watershed. The 319 funding commitments are to continue long term funding for this site for the FY 2003.

Implementation Program/Abandoned Mine Drainage

Project Title: Passive Treatment of Site 15 AMD Discharge

Project Number: 2314

Budget: \$ 454,150

Lead Agency: Shamokin Creek Restoration Alliance

Fiscal Agent – Northumberland County Conservation District

Location: Shamokin Creek, Northumberland County

HUC Code: 2050301

State Water Plan Watershed: 6B

303(d) Listed: Yes

Point of Contact: Jane Earle, BWM; Todd Wood, NERO; Patrick Kazmerski Jr., Shamokin Creek Restoration Alliance

The Shamokin Creek Restoration Alliance in partnership with the Northumberland County Conservation District are proposing to design and install passive treatment systems that will abate the Corbin Mine discharge, which flows to Shamokin Creek in Northumberland County. The passive treatment system technologies selected for this discharge are anaerobic vertical flow wetlands for alkalinity generation and aerobic vertical flow wetlands for metal removal. It is anticipated that there will be 90% removal of iron and 30mg/L of alkalinity added to Shamokin Creek.

Project Title: Big Mountain AMD Treatment Project

Project Number: 2315

Budget: \$ 64,673

Lead Agency: Shamokin Creek Restoration Alliance

Fiscal Agent – Northumberland County Conservation District

Location: Shamokin Creek, Northumberland County

HUC Code: 2050301

State Water Plan Watershed: 6B

303(d) Listed: Yes

Point of Contact: Jane Earle, BWM; Dan Koury, Pottsville District; Patrick Kazmerski Jr., Shamokin Creek Restoration Alliance

The Shamokin Creek Restoration Alliance in partnership with the Northumberland County Conservation District is proposing to design a passive treatment system under this grant to treat five abandoned discharges, including the Big Mountain discharge. Under this grant, background data, landownership issues, and a detailed design and permitting of a treatment plan that will address the five discharges will be completed.

Project Title: Anderson Creek Assessment and Restoration Plan

Project Number: 2316

Budget: \$ 50,623

Lead Agency: Anderson Creek Watershed Association
Fiscal Agent – Pike Township

Location: Anderson Creek

HUC Code: 2050201

State Water Plan Watershed: 8B

303(d) Listed: Yes

Point of Contact: Steve Lathrop, BWM;

A comprehensive assessment will be conducted to determine the effects of discharges from abandoned mines in the 78-square mile Anderson Creek watershed. Monitoring and assessment will consist of water quality analyses of major discharges and receiving streams, a visual assessment of riparian corridors, review of mining history, and determination of property ownership where treatment systems could be located. A restoration plan with locations and types of potential treatment measures will be prepared. The Anderson Creek watershed association will use the plan as a guide for sound strategies to achieve their goal of improving water quality.

Project Title: Tangascootack Project – Phase I

Project Number: 2317

Budget: \$ 33,247

Lead Agency: Clinton County Conservation District

Location: Tangascootack Creek

HUC Code: 2050203

State Water Plan Watershed: 9B

303(d) Listed: Yes

Point of Contact: Garry Price, BWM; Thresa Calabrese, Clinton County Conservation District

Phase I of this project will focus on a post-mortem study of a failed vertical flow wetland system installed in 1998. Using knowledge gained from the post-mortem study, a design and permitting for a multi-cell, passive treatment system to replace the failed system will be completed.

Project Title: Arnot No. 2, Mine #1 Discharge – Site Evaluation, Design and Permits

Project Number: 2318

Budget: \$ 58,260

Lead Agency: Arnot Sportsmans Club

Fiscal Agent – Babb Creek Watershed Association, Inc.

Location: Johnson Creek/Tioga River

HUC Code: 2050104

State Water Plan Watershed: 4A

303(d) Listed: Yes

Point of Contact: Jane Earle, BWM; Ron Signor, Arnot Sportsmans Club

This project is for the site evaluation, design of an AMD treatment facility, and associated permitting activities required for construction. Because of existing wetlands areas and mine refuse a site location for the system cannot easily be determined. A passive treatment system similar to the one constructed at Mine Discharge #2 will be constructed in a later grant. When completed this would complete remediation of AMD discharges in the area.

Project Title: Muddy Run AMD Treatment Project – Phase I

Project Number: 2319

Budget: \$ 17,144

Lead Agency: Clinton County Conservation District

Location: Tangascootack Creek

HUC Code: 2050203

State Water Plan Watershed: 9B

303(d) Listed: Yes

Point of Contact: Garry Price, BWM; Thresa Calabrese, Clinton County Conservation District

This Phase of the project will involve permitting and design activities for a vertical flow wetland treatment system to treat acid mine drainage affecting the South Fork of Tangascootack Creek. This project is a direct result of the watershed restoration plan developed in 1998. A TMDL has also been developed for this creek.

Project Title: Optimization of Limestone Drains for Long-Term Treatment

Project Number: 2320

Budget: \$ 37,000

Lead Agency: Schuylkill County Conservation District

Location: Swatara Creek

HUC Code: 2050305

State Water Plan Watershed: 7D

303(d) Listed: Yes

Point of Contact: Jane Earle, BWM; Ryan Koch, Schuylkill County Conservation District

Limestone drains constructed in the 1990's to treat AMD discharges at three locations have had significant positive impacts on water quality in the headwaters of Swatara Creek. Fish and aquatic macroinvertebrates now are present where it once was "lifeless". However, monitoring has shown that alkalinity loading rates are steadily declining. This project will provide funding to make improvements and repairs at these three limestone drains.

Project Title: Design, Implementation and Evaluation of an Innovative Aerobic Treatment System for the Otto Discharge

Project Number: 2321

Budget: \$ 432,220

Lead Agency: Schuylkill Headwaters Association, Inc.

Location: Schuylkill River

HUC Code: 2040106

State Water Plan Watershed: 3A

303(d) Listed: Yes

Point of Contact: Jane Earle, BWM; Dan Koury, Pottsville District; Clayton Bubeck, Schuylkill Headwaters Association

The Otto Discharge near Branchdale, Schuylkill County, is one of the largest AMD discharge in the Schuylkill River Watershed. A recently completed watershed assessment ranked the Otto discharge as a top priority. This project includes the implementation of a passive, aerobic treatment system that will incorporate several innovative features to remove iron, manganese, and other metals while maintaining sustained flows of oxygenated, cold water.

Project Title: Wells Creek Deep Mine Discharge #6
Project Number: 2322
Budget: \$ 80,903
Lead Agency: Wells Creek Watershed Association
Fiscal Agent – Southern Alleghenies Conservancy
Location: Wells Creek
HUC Code: 5010007
State Water Plan Watershed: 18E
303(d) Listed: Yes
Point of Contact: Jane Earle, BWM; Thurman Korn, Wells Creek Watershed Association

Design of a treatment system was completed in an earlier Growing Greener grant. This project will involve the construction of an anoxic limestone drain, a primary sedimentation pond, a polishing pond and a limestone ditch. It is anticipated that cleanup of Discharges #6 & 7 will restore a cold water fishery to approximately 6 miles of stream.

Project Title: Adams Deep Mine Discharge #7
Project Number: 2323
Budget: \$ 224,495
Lead Agency: Wells Creek Watershed Association
Fiscal Agent – Southern Alleghenies Conservancy
Location: Wells Creek
HUC Code: 5010007
State Water Plan Watershed: 18E
303(d) Listed: Yes
Point of Contact: Jane Earle, BWM; Thurman Korn, Wells Creek Watershed Association

Design of a treatment system was completed in an earlier Growing Greener grant. This project will involve the construction of a constructed wetland, a vertical flow pond, a sediment pond and a limestone drainage channel. It is anticipated that cleanup of Discharges #6 (project 2322) and # 7 will restore a cold water fishery to approximately 6 miles of stream.

Project Title: Coal Pit Run AMD Project – Phase II
Project Number: 2324
Budget: \$ 146,810
Lead Agency: Blacklick Creek Watershed Association
Location: Coal Pit Run, tributary to South Branch Blacklick Creek
HUC Code: 5010007
State Water Plan Watershed: 18D
303 (d) Listed: No
Point of Contact: Jane Earle, BWM; Robert Eppley, Blacklick Creek Watershed Association

This project will involve the installation of a successive alkaline producing system and limestone ponds and a collection system to convey the AMD to the treatment units to abate AMD at the site. The initial phase (phase I) for testing and design was completed under Growing Greener. Successful abatement of the AMD discharge is expected to result in improved water quality for 1-1.5 miles below the treatment system.

Implementation Program/Agricultural

Project Title: Best Management Practices for the Genesee River

Project Number: 2325

Budget: \$ 101,938

Lead Agency: Potter County Conservation District

Location: Genesee River Watershed

HUC Code: 4130002

State Water Plan Watershed: 14

303(d) Listed: Yes

Point of Contact: Russell Wagner BWM; Sue Ellen Wagner, Potter County Conservation District

This project will involve selection of four farms as demonstration farms to show other farmers the benefits of best management practices. The Farm A Syst process will be used to determine needed BMPs. Cost sharing will be made available to implement the needed BMPs. Field days will be held to show the reductions in nonpoint source pollution as a result of the bmp installation. The Genesee River is scheduled for the development of a TMDL.

Project Title: Agricultural Best Management Practices for Lititz Run

Project Number: 2326

Budget: \$ 100,000

Lead Agency: Lititz Run Watershed Alliance

Location: Lititz Run

HUC Code: 2050306

State Water Plan Watershed: 7J

303(d) Listed: No

Point of Contact: Russell Wagner, BWM; Daniel Zimmerman, Lititz Run Watershed Alliance

This project will provide cost sharing for installing agricultural best management practices. Five farms within the Lititz Run watershed have been identified for implementation of such best management practices as: pasture fencing, riparian buffer plantings, spouting for barnyards, manure storages, cattle crossings and spray irrigation of milk waste.

Project Title: Agricultural Best Management Practices in Lebanon County

Project Number: 2327

Budget: \$ 355,410

Lead Agency: Lebanon County Conservation District

Location: Swatara Creek

HUC Code: 2050305

State Water Plan Watershed: 7D

303(d) Listed: Yes

Point of Contact: Carl Rohr, BWM; Mark Chegwiddden, Lebanon Co. Conservation District

This project involves implementing best management practices on nine identified farms in the Elizabeth Run, Deep Run, Little Swatara Creek, Beck Creek, and Reeds Creek subwatersheds within the Swatara Creek Watershed. Best management practices proposed include waste storage systems, barnyard runoff control, roof runoff management, streambank fencing, rotational grazing paddocks, filter areas, spring developments, grassed waterways and stabilized walkways.

Project Title: Octoraro Watershed Restoration Project – Phase II

Project Number: 2328

Budget: \$ 198,000

Lead Agency: Lancaster County Conservation District

Location: Octoraro Creek

HUC Code: 2050306

State Water Plan Watershed: 7K

303(d) Listed: No

Point of Contact: Carl Rohr, BWM; Matthew Kofroth, Lancaster Co. Conservation District

The project is to continue where Phase I left off in implementing best management practices on farms in the Octoraro Creek watershed in both Lancaster and Chester Counties. Best management practices expected to be completed under phase II include: cattle crossings, forest buffers, stream bank stabilization, barnyard improvements, cropland BMPs and waste management systems with nutrient management planning.

Project Title: Brandywine-Christina Program – Phase III
Project Number: 2329
Budget: \$ 291,103
Lead Agency: Chester County Conservation District
Location: Brandywine Creek
HUC Code: 2040205
State Water Plan Watershed: 3H
303(d) Listed: Yes
Point of Contact: Russell Wagner, BWM; Dan Greig, Chester Co. Conservation District

This project will follow phases I & II for the implementation of agricultural best management practices to improve water quality. Thirteen farms have been targeted to receive cost share funds under this grant. Best management practices include: manure storage, barnyard and roof runoff systems, waterways, diversions, stream bank fencing, and contour strips. It is estimated that as a result of these BMPs, nutrient reductions of 250,000 lbs/year of nitrogen, 50,000 lbs/yr of phosphorous, and 265 tons of sediment will be reduced.

Project Title: Stonycreek River Basin Geographic Priority Area
Project Number: 2330
Budget: \$ 156,742
Lead Agency: Somerset County Conservation District
Location: Stonycreek watershed
HUC Code: 5010007
State Water Plan Watershed: 18E
303(d) Listed: No
Point of Contact: Carl Rohr, BWM; Carl Jones, Somerset Co. Conservation District

This project will involve the cost sharing of best management practices in agricultural operations. Based on a watershed assessment report, the high priority watersheds identified in the assessment report will be the focus of this project. These areas include the Beaverdam Creek, Quemahoning Creek, North Branch Quemahoning Creek, Roaring Run, and Upper Stonycreek River subwatersheds. Five management systems will be emphasized: nutrient management, streambank protection, cropland management, pasture/hayland, and waste management.

Implementation Program/Urban Stormwater

Project Title: Hammer Creek Natural Channel Design

Project Number: 2331

Budget: \$ 210,450

Lead Agency: Hammer Creek Watershed Association

Location: Hammer Creek

HUC Code: 2050306

State Water Plan Watershed: 7J

303(d) Listed: Yes

Point of Contact: Barbara Lathrop, BWM; Gary Trostle, Hammer Creek Watershed Assoc.

The Zimmerman-Fox stream restoration project is prioritized project identified in the Hammer Creek Watershed Assessment which was completed previously under a 319 grant. This site is a 3100-foot stream section immediately above an approximate 1 mile restored natural channel design project completed within the last two years. When completed this project is expected to reduce erosion by an estimated 350 tons/year, create one acre of wetlands, establish 3100 feet of riparian buffer, increase the macroinvertebrate community by 50% and reduce water temperature by 1 degree Fahrenheit.

Project Title: East Branch Codorus Creek, Phase IV Restoration

Project Number: 2332

Budget: \$ 208,820

Lead Agency: Izaak Walton League of America, York Chapter 67

Location: East Branch Codorus Creek

HUC Code: 2050306

State Water Plan Watershed: 7H

303(d) Listed: No

Point of Contact: Fran Koch, BWM; Greg Grundler, Izaak Walton League

This project will continue stream restoration efforts identified as high priority sites in the East Branch Codorus Creek Watershed Assessment. Two project sites, both located in Spring Valley Park targeted in this project combined total over 4,100 feet of streambank restoration. All restoration work will incorporate a natural channel approach.

Project Title: South Branch Codorus Creek, Phase IV Restoration
Project Number: 2333
Budget: \$ 534,120
Lead Agency: Izaak Walton League of America, York Chapter 67
Location: South Branch Codorus Creek, York County
HUC Code: 2050306
State Water Plan Watershed: 7H
303(d) Listed: Yes
Point of Contact: Barbara Lathrop, BWM; Trent Brown Izaak Walton League

This project will continue stream restoration efforts identified as high priority sites in the South Branch Codorus Creek Watershed Assessment. The three high priority reaches targeted in this project will total over 10,600 feet of streambank restoration. The three sites are located on Centerville Creek, the lowe Krebs Valley tributary and the South Branch Codorus Creek. All restoration work will incorporate a natural channel design approach.

Project Title: Bachman Run Stream Restoration Design and Implementation
Project Number: 2334
Budget: \$ 52,125
Lead Agency: Little Conestoga Watershed Alliance
Location: Bachman Run
HUC Code: 2050306
State Water Plan Watershed: 07J
303(d) Listed: Yes
Point of Contact: Russell Wagner, BWM; Michelle Spitko, Little Conestoga Watershed Alliance

Bachman Run is a 6.1 square mile subwatershed of the Little Conestoga Creek. Sections of Bachman Run have been severely impacted by accelerated erosion and sedimentation due mainly to increased storm water runoff generated from intense residential development in the headwaters. This project will include the restoration plan and its implementation for a 2,600 foot section of stream channel and riparian corridor along Bachman Run. The restoration project will include regarding and stabilization of stream banks, the use of in-stream aquatic habitat and flow control structures and the establishment of a riparian buffer on both sides of the stream with trees and shrubs.

Grant Match:

Project Title: Conservation District Fund Allocation Program (Match)

Project Number: N/A

Budget: \$ 3,100,000 (state match)

Lead Agency: Bureau of Water Quality Protection

Location: Statewide

Point of Contact: Russell Wagner, BWM

This program is administered by the State Conservation Commission and is funded from the State General Fund. This money is used to support the continuing activities of conservation districts by partially funding a district manager and one or two district technicians in each county.

Project Title: Growing Greener Watershed Specialists (Match)

Project Number: N/A

Budget: \$ 1,445,000 (state match)

Lead Agency: Bureau of Watershed Conservation

Location: Statewide

Point of Contact: Russell Wagner, BWM

This was a new state program available for the first time in 2000. This program provides grants to conservation districts to hire watershed specialists to help foster and support local watershed groups, educational activities and watershed restoration and protection projects. A total of 45 watershed specialists have been hired. Included in their responsibilities is to provide expert advice to farmers and landowners for conservation practices and work with DEP on projects and proposals funded through the NPS 319 and Growing Greener programs.