

**PENNSYLVANIA NONPOINT SOURCE PROGRAM**  
**FY2006 PROJECT SUMMARY - FINAL**

**Base Program/District Staff**

**Project Title:** Conservation District Mining Program

**Project Number:** 2601

**Budget:** \$ 125,000

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

**Location:** Western Pennsylvania bituminous coal region

**Point of Contact:** Garry Price, DEP 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:** 2602

**Budget:** \$ 125,000

**Lead Agency:** Luzerne County Conservation District

**Location:** Anthracite and northern bituminous regions of Pennsylvania

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

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:** 2603

**Budget:** \$ 1,351,024

**Lead Agency:** Bureau of Watershed Management

**Location:** DEP Regional Offices/DEP Central Office

**Point of Contact:** Russell L. Wagner, DEP

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, three water pollution biologists, a hydrogeologist, 2 conservation program specialists, an environmental planner 2, a clerk typist and an administrative assistant. This project will require an additional \$ 314,931 in indirect costs.

### **Base Program**

**Project Title:** Citizen Monitoring Program

**Project Number:** 2604

**Budget:** \$ 50,000

**Lead Agency:** Bureau of Watershed Management

**Location:** Statewide

**Point of Contact:** Cheryl Snyder, DEP

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 \$10,285 in indirect costs.

**Project Title:** Statewide NPS Education Office  
**Project Number:** 2605  
**Budget:** \$ 175,000  
**Lead Agency:** Pennsylvania Association of Conservation Districts (PACD)  
**Location:** Statewide  
**Point of Contact:** Fran Koch, DEP 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:** Watershed Education for Pollution Prevention-VI  
**Project Number:** 2606  
**Budget:** \$ 100,000  
**Lead Agency:** League of Women Voters of PA-Citizen Education Fund (LWV-CEF)  
**Location:** Statewide  
**Point of Contact:** Fran Koch, DEP

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:** TMDL Watershed Restoration Plans – Phase III  
**Project Number:** 2607  
**Budget:** \$ 180,000  
**Lead Agency:** Bureau of Watershed Management  
**Location:** Selected Watersheds  
**HUC Code:** Various  
**303 (d) Listed:** yes  
**Point of Contact:** Steve Lathrop, DEP

This project is an effort to continue providing financial and technical assistance in developing watershed restoration plans in watersheds where TMDLs have or will be developed. This effort will involve the DEP Regional Offices selecting specific watersheds meeting the EPA criteria and various local watershed associations identified in specific watersheds where TMDLs have been or will be developed. The goal is to have DEP Regional Office and local stakeholder support and input in the development of the restoration plan for the watershed

which will meet the goal of addressing the TMDL, if a TMDL has been developed, 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 by the DEP Bureau of Watershed Management.

**Project Title:** Statewide Lake Water Quality Assessments

**Project Number:** 2608

**Budget:** \$ 10,000

**Lead Agency:** Bureau of Watershed Management

**Location:** Statewide

**Point of Contact:** Barbara Lathrop, DEP

DEP will coordinate the assessment of 10 of Pennsylvania's Significant and Important Lakes. The lakes will be sampled to determine trophic status, nutrients, macrophyte coverage and fisheries if no previous data exists). Sampling will be done by DEP or DCNR or the PFBC using DEP's standard lake protocol. The water quality work addressed by this work plan includes the collection of samples and submission to DEP's laboratory for analysis. This project will require an additional \$2,057 in indirect costs.

#### **National Monitoring Projects:**

**Project Title:** Villanova Stormwater National Monitoring Program

**Project Number:** 2609

**Budget:** \$ 58,561

**Lead Agency:** Villanova University

**Location:** Mill Creek, Montgomery County

**HUC Code:** 02040203

**303(d) Listed:** Yes

**Point of Contact:** Fran Koch, DEP; Dr. Robert Traver, Villanova University

This project will continue to collect and monitor inflow and outflow non-point source flow and pollutant loadings entering and leaving three urban stormwater Best Management Practices (BMP) located on the Villanova University campus: Infiltration – Porous Concrete Infiltration Demonstration Site; Bioinfiltration Traffic Island; and infiltration Trench. To measure the difference in flow volume and peak for wet weather flows. To develop pollutant Event Mean Concentrations for each storm (entering and exiting). To develop pollutant and flow averages for base flow conditions. This project joined the Section 319 Nonpoint Source National Monitoring Program in FY2004. All data collected will be included in STORET and the National BMP Database.

**Project Title:** Riparian Forest Buffer Monitoring Program

**Project Number:** 2610

**Budget:** \$ 103,578

**Lead Agency:** Stroud Water Research Center

**Location:** Brandywine Creek Watershed, Chester County

**HUC Code:** 02040205

**303(d) Listed:** Yes

**Point of Contact:** Carl Rohr, DEP; J. Denis Newbold, Stroud Water Research Center

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:** 2611

**Budget:** \$ 150,633

**Lead Agency:** Schuylkill County Conservation District

**Location:** Swatara Creek, Schuylkill County

**HUC Code:** 02050305

**303(d) Listed:** Yes

**Point of Contact:** Russell Wagner, DEP; Dan Koury, DEP; Tom Davidock, Schuylkill County Conservation 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 FY 2006.

## **Implementation Program/Abandoned Mine Drainage**

**Project Title:** Six Mile Run SX0-D6 AMD Remediation [This project was removed from the G rant]

**Project Number:** 2612

**Budget:** \$ 8,000

**Lead Agency:** Broad Top Township

**Location:** Six Mile Run, Bedford County

**HUC Code:** 2050303

**303(d) Listed:** Yes

**Point of Contact:** Donna Carnahan, DEP; Bob Burns, DEP; Ernest Fuller, Broad Top Township

This project will continue the efforts to reduce abandoned mine drainage loadings to the Six Mile Run watershed. Discharge SX0-D6 is one of sixteen identified discharges along the main stem of Six Mile Run. The treatment of this identified discharge is recommended in the Remediation plan for the watershed and the TMDL recommends removal of 100 per cent of the acid load. This project includes the survey and design of the proposed treatment system only.

**Project Title:** Six Mile Run Discharge SX3-D9 AMD Remediation

**Project Number:** 2613

**Budget:** \$ 277,495

**Lead Agency:** Broad Top Township

**Location:** Six Mile Run, Bedford County

**HUC Code:** 2050303

**303(d) Listed:** Yes

**Point of Contact:** Donna Carnahan, DEP; Scott Alexander, DEP; Ernest Fuller, Broad Top Township

This project will continue the efforts to reduce abandoned mine drainage loadings to the Six Mile Run watershed. This project is for the survey, design and construction of a series of vertical flow wetland type systems to treat the SX3-D9 and SX0-D16 discharges. With treatment of SX3-D9 the discharges along the entire length of Shreves Run from Finleyville to the confluence with Six Mile Run will be cleaned up.

**Project Title:** Six Mile Run Discharge SX2-D6, D7, D8 AMD Remediation

**Project Number:** 2614

**Budget:** \$ 19,000

**Lead Agency:** Broad Top Township

**Location:** Six Mile Run, Bedford County

**HUC Code:** 2050303

**303(d) Listed:** Yes

**Point of Contact:** Donna Carnahan, DEP; Harry Barnes, DEP; Ernest Fuller, Broad Top Township

This project is for the survey and design of three more identified discharges in the headwaters of Six Mile Run. These discharges were listed as priority AMD remediation sites in the 2001 AMD assessment. The 2002 TMDL requires 100% of the acid load in Six Mile Run be removed before its confluence with Brewster Hollow Run.

**Project Title:** Shreves Run Regional AMD Remediation [This project was removed from the Grant]

**Project Number:** 2615

**Budget:** \$ 129,900

**Lead Agency:** Broad Top Township

**Location:** Six Mile Run, Bedford County

HUC Code: 2050303

303(d) Listed: Yes

**Point of Contact:** Donna Carnahan, DEP; Harry Barnes, DEP; Ernest Fuller, Broad Top Township

Treatment of Discharges SX3-D4, SX3-D5, SX3-D6, SX3-D7 and SX3-D8 involve the construction of individual limestone pond type systems and/or limestone channels. This project will involve the survey, design and construction of the treatment systems. Treatment of these five discharges will improve water quality in 0.8 miles of Shreves Run.

**Project Title:** Six Mile Run SX2-D5 AMD Remediation [This project was removed from the Grant]

**Project Number:** 2616

**Budget:** \$ 10,000

**Lead Agency:** Broad Top Township

**Location:** Six Mile Run, Bedford County

**HUC Code:** 2050303

**303(d) Listed:** Yes

**Point of Contact:** Donna Carnahan, DEP; Scott Alexander, DEP; Ernest Fuller, Broad Top Township

This project will include the surveying and design. This discharge is in the headwaters of Six Mile Run and is the largest discharge within the Spruce Hill subwatershed. There are a total of nine AMD discharges within the Spruce Hill subwatershed identified in the 2001 AMD Assessment and Remediation plan.

**Project Title:** Hubler Run 2 AMD Treatment System Construction

**Project Number:** 2617

**Budget:** \$ 99,000

**Lead Agency:** Emigh Run/Lakeside Watershed Assn., Inc.

**Location:** Hubler Run/Alder Run, Clearfield County

**HUC Code:** 2050201

**303(d) Listed:** Yes

**Point of Contact:** Donna Carnahan, DEP; Eric Rosengrant, DEP; Anna Mae Pezzulla, Emigh Run/Lakeside Watershed Assn., Inc.

This project is for the construction of a passive treatment system to address the last three untreated discharges on Hubler Run which is a tributary to Alder Run. The design of the treatment stem was funded in a previous grant. Together with the Hubler 1 treatment system under another grant, completion of this project will result in the recovery of the entire length of Hubler Run, a length of 1.4 miles.



**Project Title:** Hartman Run Alkalinity Addition Project

**Project Number:** 2618

**Budget:** \$ 29,000

**Lead Agency:** Huntingdon County Conservation District

**Location:** Shoup Run, Huntingdon County

**HUC Code:** 2050303 (revised to 02050303 from 02050203)

**303(d) Listed:** Yes

**Point of Contact:** Donna Carnahan, DEP; Joe Allison, DEP, Andy Patterson, Huntingdon County Conservation District

This project is an improvement project of the Shoups Run Watershed Restoration Plan and the TMDL developed for the watershed. The project will consist of reclamation of 3 spoil piles including the adding of high calcium carbonate limestone screenings to add much needed alkalinity. Success of this project will restore approximately 0.75 miles of stream tributary to Shoups Run.

**Project Title:** Limestone Supplement for the Audenreid Mine Tunnel

**Project Number:** 2619

**Budget:** \$ 20,320

**Lead Agency:** Schuylkill County Conservation District

**Location:** Catawissa Creek, Schuylkill County

**HUC Code:** 02050107 (revised to 02050107 from 02050203)

**303(d) Listed:** Yes

**Point of Contact:** Russell Wagner, DEP; Dan Koury DEP, Tom Davidock, Schuylkill County Conservation District

The Audenreid Mine Tunnel discharge remediation project is being funded under a FFY 2005 319 grant. Construction costs have exceeded the funding available in the FFY 2005 grant. Additional funding is needed to provide for the 14,000 tons of #3 limestone needed for the treatment system. The funding provided under this project is for the purchase of the limestone needed to operate the treatment system. The treatment system, when operational will restore 36 miles of the Catawissa Creek.

**Project Title:** Oneida/Green Mountain Discharges AMD Treatment [This project was removed from the Grant]

**Project Number:** 2620

**Budget:** \$ 0

**Lead Agency:** Schuylkill County Conservation District

**Location:**

**HUC Code:**

**State Water Plan Watershed:**

**303(d) Listed:**

**Point of Contact:** Russell Wagner, DEP; Dan Koury, DEP, Tom Davidock, Schuylkill County Conservation District

This project was removed from the grant.

**Project Title:** Hartshorn Run Assessment and Restoration Plan

**Project Number:** 2621

**Budget:** \$ 9,564

**Lead Agency:** Clearfield County Conservation District

**Location:** Hartshorn Run, Clearfield County

**HUC Code:** 02050201 (revised to 02050201 from 02050303)

**State Water Plan Watershed:** 11D

**303(d) Listed:** Yes

**Point of Contact:** Steve Lathrop, DEP; Dale Salada, DEP, Rachel Kester, Clearfield County Conservation District

Hartshorn Run is a 4.61 square mile watershed that is a tributary to the West Branch of the Susquehanna River. The headwaters are located between Anderson Creek and Montgomery Run, two watersheds selected for development of watershed restoration plans in the Nonpoint Source Program. This project will consist of the assessment of the watershed and the development of the restoration plan to address the TMDL that has been completed for this watershed.

### **Implementation Program/Agricultural**

**Project Title:** Ag BMP Implementation Program II

**Project Number:** 2622

**Budget:** \$ 100,000

**Lead Agency:** Centre County Conservation District

**Location:** Little Fishing Creek, Centre County (revised to Little Fishing Creek from Spruce Creek)

**HUC Code:** 02050204 (revised to 02050204)

**303(d) Listed:** Yes

**Point of Contact:** Carl Rohr, DEP; Jason Fellon, DEP; John Wataha, Centre County Conservation District

Because of previous successful projects, a waiting list of farmers interested in implementing BMPs has developed. This project is to build upon the success of the previous projects. Funds will be provided to cost share BMPs such as the establishment of buffers along the streams and the installation of additional BMPs that will reduce sediment and nutrient runoff from farms. All farms selected will be ones that contribute runoff to impaired waterways.

### **Implementation Program - Stormwater/Urban**

**Project Title:** Godfrey Pasture Stream Restoration Project [This project was removed from the Grant]

**Project Number:** 2623

**Budget:** \$ 0

**Lead Agency:** Izaak Walton League

**Location:** East Branch Codorus Creek, York County

**HUC Code:** 02050306

**303(d) Listed:** Yes

**Point of Contact:** Fran Koch, DEP; Rick Devore, SCRO; Thomas Kornbau, York Chapter Izaak Walton League of America

This project has been removed from the grant.

**Project Title:** McClelland Pasture Stream Restoration Project [This project was removed from the Grant]

**Project Number:** 2624

**Budget:** \$ 0

**Lead Agency:** Izaak Walton League

**Location:** South Branch Codorus Creek, York County

**HUC Code:** 02050306

**303(d) Listed:** Yes

**Point of Contact:** Barbara Lathrop, DEP; Rick Devore, SCRO; Thomas Kornbau, York Chapter Izaak Walton League of America

**Project Title:** Pequea Creek Restoration Phase II Construction

**Project Number:** 2625

**Budget:** \$ 158,485

**Lead Agency:** Paradise Sportsmen's Association

**Location:** Pequea Creek, Lancaster County

**HUC Code:** **02050306** (revised to 02050306 from 02050301)

**303(d) Listed:** Yes

**Point of Contact:** Russell Wagner, DEP; Jineen Boyle SCRO; Dewey Null, Paradise Sportsmen's Association

This project is to construct a streambank stabilization project on a 3,725 foot section of Pequea Creek. The design was completed under a previous grant. Design calls for twelve rock cross vanes, two rock vanes, thirty-four J-hook rock vanes and 18 rock deflectors. Live stakes and other vegetation are incorporated into the design to help stabilize the banks. Twelve hundred feet of streambank fencing to exclude cattle from the stream will also be included.

**Project Title:** Durham Ridge Wetland – Phase 2

**Project Number:** 2626

**Budget:** \$ 77,247

**Lead Agency:** Plumstead Township

**Location:** Pine Run, Bucks County

**HUC Code:** **02040201** (revised to 02040201 from 02050304)

**State Water Plan Watershed:** 12A

**303(d) Listed:** Yes

**Point of Contact:** Steve Lathrop, DEP; Kevin Munley, DEP SERO; Michael May, Plumstead Township

This project is to create a 29,000 square foot wetland upstream from an existing wet basin. The wetland will be key in providing pre-treatment for the stormwater management basin and will assist in runoff control. The wetland will be planted with native species with emphasis on plants that specifically sequester carbon. The design for the project was completed under a previous grant provided by the 319 program. Pine Run is a 11.5 square mile impaired watershed that is a tributary of Neshaminy Creek.

**Project Title:** Mahoning Creek Channel Stabilization

**Project Number:** 2627

**Budget:** \$ 22,800

**Lead Agency:** Montour County Conservation District

**Location:** Mahoning Creek, Montour County

**HUC Code:** 02050107 (revised to 02050107)

**303(d) Listed:** Yes

**Point of Contact:** Russell Wagner, DEP; Lisa Houser, DEP NCRO; Kim Leshtock, Montour County Conservation District

Funding previously awarded for this project was found to be insufficient to meet the construction costs. Funding under this project is to provide the funds needed to complete the construction of the project that were insufficient in the previous grant. The project will involve the stabilization of an approximately 850 foot section of stream on a portion of Mahoning Creek listed as impaired due to excessive siltation. The project scope includes the installation of rock structures to stabilize the stream using natural stream design techniques.

**Project Title:** Energy Resource Center – Green Building Project

**Project Number:** 2628

**Budget:** \$ 45,000

**Lead Agency:** SEDA – Council of Governments

**Location:** Turtle Creek, Union County

**HUC Code:** 02050206 (revised to 02050206)

**303(d) Listed:** No

**Point of Contact:** Russell Wagner, DEP; Jim Young, DEP NCRO; Brian Auman, SEDA – Council of Governments

This project provides funding toward the construction of a LEED (Leadership in Energy and Environmental Design) certified green building. Funds will be used toward the cost of installing a vegetated roof. Costs reflect the additional costs beyond that of a conventional roof for structural support, growing medium and plants. The funding will also be used for the vegetated swales component of the stormwater management system. Funds will be used for the purchase of the native vegetation.

**Project Title:** Frances Slocum Lake/Abrahams Creek Assessment

**Project Number:** 2629

**Budget:** \$ 48,900

**Lead Agency:** Luzerne Conservation District

**Location:** Toby Creek, Luzerne County

**HUC Code:** 02050107 (revised to 02050107)

**303(d) Listed:** Yes

**Point of Contact:** Steve Lathrop, DEP; Jeremy Miller, DEP NERO; Shawn Rybka, Luzerne County Conservation District

This project involves the assessment and development of a restoration plan for Frances Slocum Lake and Abrahams Creek watershed. The final Restoration Plan will include an assessment of the NPS loadings, trophic state of the lake, identify major sources of nonpoint source pollution to these waters, prioritize subwatersheds on an NPS loading basis, scheduling of program implementation and estimated costs.

### **Other Projects**

**Project Title:** BMP Implementation to Address TMDLs – Phase I & II

**Project Number:** 2630

**Budget:** \$ 2,089,320

**Lead Agency:** DEP, Bureau of Watershed Management

**Location:** Multiple

**HUC Code:** Multiple

**303(d) Listed:** Yes

**Point of Contact:** Russell Wagner, DEP

This project provide financial assistance to implement BMPs in those watersheds identified in Phase I and II Watershed Restoration Planning projects in previous grants where the watershed restoration plans have been accepted by EPA has accepted the watershed restoration plans. This project also provides financial assistance in implementing BMPs in watershed identified in Project 2607 “TMDL Watershed Restoration Plans-Phase III”. Funding of BMPs in all these watersheds will help reduce nonpoint source loads, achieve load reductions identified in the TMDLs, restore designated uses, and with the ultimate goal of removing stream segments from the 2004 DEP Integrated Quality Monitoring and Assessment Report impaired list.

**Project Title:** Sandy Run SAO-D4 AMD Remediation

**Project Number:** 2630A

**Budget:** \$ 23,000

**Lead Agency:** Broad Top Township

**Location:** Sandy Run, Bedford County

**Point of Contact:** Donna Carnahan, DEP; Malcolm Crittenden, DEP; Ernest Fuller, Broad Top Township

This project will continue efforts to reduce AMD loadings to the headwaters of the Sandy Run watershed. Discharge SA0-D4 is one of 21 identified discharges in the watershed and is the top priority for remediation in the watershed’s recently updated implementation plan.

Preliminary designs will be developed for the discharge collection and transmission as well as the combined treatment systems. A design consideration for the treatment system may be the collection and conveyance of un-impacted water to avoid the interception of surface runoff from entering the treatment system, if necessary. After completion of preliminary design, the project partners will meet to discuss the preliminary plans.

After the project partners provide comments on the preliminary design, the final design will be developed. Under the final design task, construction plans and specifications will be prepared for

use by the Township in construction. The township will apply for further funding for construction.

**Project Title:** Six Mile Run SXO-D8 AMD Evaluation/Design

**Project Number:** 2630B

**Budget:** \$ 10,670

**Lead Agency:** Broad Top Township

**Location:** Six Mile Run, Bedford County

**Point of Contact:** Donna Carnahan, DEP; Malcolm Crittenden, DEP; Ernest Fuller, Broad Top Township

This discharge was listed as a primary AMD source in the 2001 AMD assessment and in 2005 Watershed Implementation Plan. The treatment evaluation will consider the known options for cost-effectively treating the SXO-D8 discharge, while taking into account such other concerns as working with the associated property owners for site access and potential treatment systems, permitting requirements for the recommended options, and achievable goals for remediating the discharge based on the long-term objective of restoring Six Mile Run from AMD pollution. This evaluation will result in a preliminary design and estimated costs to complete the recommended construction activities.

**Project Title:** BMPs in Upper Kishacoquillas Creek

**Project Number:** 2630C

**Budget:** \$ 289,272

**Lead Agency:** Mifflin County Conservation District

**Location:** Upper Kish Creek, Mifflin County

**Point of Contact:** Mark Mathews, DEP; Carl Rohr, DEP; Cadie Pruss, Mifflin County Conservation District

Funding in this project is for the continued installation of Best Management Practices to reduce nonpoint source pollution through stream bank fencing and planting buffers, conservation crop rotation, contour farming, nutrient management, residue management, no-till, cover crops, barnyard runoff control, and waste management systems on farms identified in the approved watershed implementation plan. Focus will be on working within the King's Hollow and Soft Run sub watersheds.

**Project Title:** LaRue Mill Restoration Project

**Project Number:** 2630D

**Budget:** \$ 731,044

**Lead Agency:** Izaak Walton League

**Location:** South Branch Codorus Creek, York County

**HUC Code:** 02050306

**303(d) Listed:** Yes

**Point of Contact:** Joe Kelly, DEP; Rick Devore, SCRO; Thomas Kornbau, York Chapter Izaak Walton League of America

The funding for this project will be used to continue stream restoration efforts in the South Branch Codorus Creek watershed. The proposed restoration site was selected from the prioritized list of impaired streams as documented in the South Branch Codorus Creek Watershed Assessment Report (2001). The project is approximately 3,210 feet of restoration on the South Branch and approximately 789 feet on Cherry Run. In-stream rock and log structures will be used to stabilize the banks, improve sediment transport and create aquatic habitat. Riparian buffers will be planted to serve as a buffer between the stream and adjacent land.

**Project Title:** Godfrey Pasture Stream Restoration Project

**Project Number:** 2630E

**Budget:** \$ 687,861

**Lead Agency:** Izaak Walton League

**Location:** East Branch Codorus Creek, York County

**HUC Code:** 02050306

**303(d) Listed:** Yes

**Point of Contact:** Joe Kelly, DEP; Rick Devore, SCRO; Thomas Kornbau, York Chapter Izaak Walton League of America

The proposed stream restoration project is the final stage (Stage IV) of the East Branch Codorus Creek Phase III stream restoration project. The project reach is 3,400 feet in length and was identified as a severely impaired reach during the East Branch Codorus Creek watershed assessment. Stream bank erosion monitoring is ongoing and erosion rates of up to two feet per year have been measured with some bank heights over seven feet. Based on preliminary bank erosion monitoring, it is estimated that over 1.5 million pounds or 750 tons of sediment erode from the proposed project reach year. Restoration will include channel pattern adjustments, bank grading, installation of in-stream stabilization and habitat structures and riparian buffer planting. The design approach for restoration is based on natural channel design techniques and methodologies. The stream restoration design includes the construction of 0.08 acres of additional wetlands.

**Project Title:** Oil Creek Stream Restoration

**Project Number:** 2630F

**Budget:** \$ 287,452

**Lead Agency:** Codorus Creek Watershed Association

**Location:** Oil Creek

**HUC Code:** 2050306

**State Water Plan Watershed:** 7H

**303(d) Listed:** Yes

**Point of Contact:** Fran Koch, DEP; Rick Devore, DEP; Jeff Hines, Codorus Creek Watershed Association

Funding is requested to permit, design and construct a 3,600 foot section of Oil Creek. The restoration design will use a natural channel approach. In-stream structures will be incorporated into the design to stabilize streambanks, improve sediment transport and enhance aquatic habitat. A 35 foot wide riparian buffer is also planned. Funding started on this project (\$58,418) as part



of project #26 in the FFY 2004 grant. Funding in this grant (\$276,322) was used to complete the project.

**Project Title:** Bear Creek Mine Discharge

**Project Number:** 2630G

**Budget:** \$ 220,000

**Lead Agency:** Dauphin County Conservation District

**Location:** Bear Creek

**HUC Code:** 2050301

**State Water Plan Watershed:** 6C

**303(d) Listed:** Yes

**Point of Contact:** Garry Price, DEP; Dan Koury, DEP; Andrew McAllister, Dauphin County Conservation District

This project proposes to design and construct sediment ponds to treat the discharges. The passive treatment system will consist of one settling basin directly adjacent to the Lykens Tunnel discharge plus two other basins further downslope. Diversion ditches will be constructed around all three basins to provide for control of site stormwater. Construction of the treatment system will reduce iron, sulfate, magnesium and turbidity. Total iron concentration of the final treatment discharge of the Lykens Tunnel is expected to be between 1 and 2 mg/l. This will result in an approximately 80% reduction in the amount of total iron discharged into Bear Creek from the Lykens Tunnel. This project began as project 18 in the FFY2004 grant. Funding provided in that grant was \$193,168. The project was completed under this project with \$26,832 in FFY2006 funds.

**Project Title:** Blacks Creek: BC16 Remediation Project

**Project Number:** 2630H

**Budget:** \$ 136,751

**Lead Agency:** Stream Restoration, Inc.

**Location:** Blacks Creek/ Slippery Rock Creek, Butler County

**HUC Code:** 5030105

**State Water Plan Watershed:** 20C

**303(d) Listed:** Yes

**Point of Contact:** Garry Price, DEP, Elias Heferle, Knox DMO, Margaret Dunn, Stream Restoration Inc.

This project will address a discharge, from an abandoned oil well known as BC16, which discharges degraded water into an unnamed tributary of Blacks Creek. The passive treatment system for the BC16 discharge will consist of an aerobic wetland and a horizontal flow limestone bed. This project is part of a large-scale restoration effort for Blacks Creek and Slippery Rock Creek through reclamation of abandoned mine lands and treatment of abandoned mine discharges. Completion of all planned treatment phases would significantly improve a 3.5-mile segment of Blacks Creek and downstream Slippery Rock Creek. Biological and chemical monitoring will be conducted to determine the effects of the treatment systems on Blacks Creek. The Slippery Rock Watershed Coalition, a public-private partnership, is addressing long-term maintenance issues through establishment of a trust fund. This project began as project #24 in the FFY2005 grant (\$14,989) and was completed as part of this project (\$136,751).

**Project Title:** Hubler Run 1 AMD Treatment System Rehabilitation

**Project Number:** 2630I

**Budget:** \$ 122,337

**Lead Agency:** West Branch Sportsman's Association (Applicant)  
Emigh Run/Lakeside Watershed Assn., Inc. (sponsor)

**Location:** Hubler Run/Alder Run, Clearfield County

**HUC Code:** 2050201

**State Water Plan Watershed:** 8C

**303(d) Listed:** Yes

**Point of Contact:** Donna Carnahan, DEP; Mario Carrello, DEP; Anna Mae Pezzulla, Emigh Run/Lakeside Watershed Assn., Inc.

This project will include design and construction of the necessary improvements to the existing Hubler Run #1 passive treatment system so the discharge will have sufficient quality to restore the fishery of Hubler Run. The current performance of the system does not indicate problem with construction or maintenance; however, the system has been experiencing average flows much higher than the design flows and does not have the capacity to treat the larger flows. The improvements include: (1) divide the limestone trench into two components, (2) install additional drainage pipe in the existing limestone trench and cell, and (3) construct an additional series of treatment components. This project began as part of the FFY2005 grant (Project # 17 \$14,927) and was completed under this project (\$191,339).

**Project Title:** Prioritization of BMPs and Implementation

**Project Number:** 2630J

**Budget:** \$ 191,339

**Lead Agency:** Harveys Lake Borough

**Location:** Harveys Lake, Luzerne County

**Point of Contact:** Ron Yablonsky, DEP; Barb Lathrop, DEP; Laurence Lucarino, Harveys Lake Borough

The recently completed Harveys Lake Implementation plan identified eight of twenty-three sites for potential projects. Funding in the grant is for the installation of a three-chambered nutrient removing baffle box BMP in one of these eight targeted sites. This baffle box will be similar to one installed at another location that removes approximately 20% of the annual total phosphorus load. This baffle box will be retrofitted with iron oxide to increase its capacity to remove phosphorus. Storm water samples will be taken with the data used to evaluate the pollutant removal efficiencies of the baffle box and compare the efficiencies to the annual total phosphorus loads identified in the Total Maximum Daily Load (TMDL).

**Project Title:** Conowingo Creek Pilot Program

**Project Number:** 2630K

**Budget:** \$ 98,573

**Lead Agency:** Trout Unlimited, Donegal Chapter

**Location:** Conowago Creek, Lancaster County

**Point of Contact:** Carl Rohr, DEP; Glen Nephin, Trout Unlimited, Donegal Chapter

The recently completed Conewago Creek watershed implementation plan identified 126 priority sites for addressing the nonpoint problems in the watershed. This project is the first step in addressing those priority sites. The approach is to start at the top of the watershed and proceed downstream. Five sites have been identified for this project. All projects involve bank stabilization efforts. Over 1,600 feet of streambanks will be stabilized as well as 2,000 feet of streambank fencing and 2 acres of forested buffer plantings.

**Project Title:** Oneida #3 Mine Tunnel Discharge Remediation Project

**Project Number:** 2630L

**Budget:** \$ 956,000

**Lead Agency:** Schuylkill County Conservation District

**Location:** Catawissa Creek, Schuylkill County

**Point of Contact:** Garry Price, DEP; Dan Koury, DEP, Wayne Lehman, Schuylkill County Conservation District

The Oneida #3 discharge is the second largest discharge in the Catawissa Creek watershed by volume and is the primary source of abandoned mine drainage to the Tomhicken Creek. Original design was completed under a previous 319 grant. The treatment system will significantly increase the pH and alkalinity of the discharge. The project will be completed using a phased approach. DEP, Bureau of Abandoned Mine Reclamation is planning to reclaim some abandoned mine land and restore the Little Tomhicken Creek to the surface. This may reduce the flow of the discharge. The treatment system will be similar to the one used at the Audenreid Tunnel which became operational within the last 6 months. Information collected on that system may impact the final design of the Oneida #3 system.

**Project Title:** BMP Implementation to Address TMDLs – Phase III

**Project Number:** 2631

**Budget:** \$ 0

**Lead Agency:** DEP, Bureau of Watershed Management

**Location:** Multiple

**HUC Code:** Multiple

**303(d) Listed:** Yes

**Point of Contact:** Russell Wagner, DEP

This project has been incorporated into Project 2630.

**Grant Match:**

**Project Title:** Conservation District Fund Allocation Program (Match)

**Project Number:** N/A

**Budget:** \$ 1,969,933 (state match)

**Lead Agency:** Bureau of Water Quality Protection

**Location:** Statewide

**Point of Contact:** Russell Wagner, DEP

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:** \$ 1,963,467 (state match)

**Lead Agency:** Bureau of Watershed Conservation

**Location:** Statewide

**Point of Contact:** Russell Wagner, DEP

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 63 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.