

**PENNSYLVANIA NONPOINT SOURCE PROGRAM**  
**FY2010 PROJECT SUMMARY**

**Base Program/DEP Staff**

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

**Project Number:** 1001

**Budget:** \$929,226

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

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

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

This project will strengthen the links between Central Office Program staff and the Regional Offices and enhance the roles of the DEP Regional and Mining Offices in the Nonpoint Source Program. The project will fund a total of eight work years of effort for NPS activities by regional and mining office staff in each of the DEP Regional and Mining Offices. Any DEP regional NPS efforts above the eight work years of effort will be used as part of the state match. An additional 3.53 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. The positions supporting these work years of effort include: a conservation program manager, two water pollution specialists, an environmental program specialist, three water pollution biologists, a hydrogeologist, a conservation program specialist, an environmental planner, a clerk typist and an administrative assistant. This project will require an additional \$ 271,612 in indirect costs.

**Base Program**

**Project Title:** Agricultural Compliance Initiative

**Project Number:** 1002

**Budget:** \$1,000,000

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

**Location:** Multiple

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

This project will provide support (administrative and BMP cost share) to the implementation of Pennsylvania's ag assessment and compliance initiative in several targeted watersheds throughout the state. The assessments will focus on identifying regulatory violations of both federal (e.g. NPDES) and state (e.g. Nutrient Management and Erosion and Sediment Control) laws and getting farmers to baseline compliance for trading. In addition, strategies will be developed to evaluate and rank violations for priority compliance assistance (technical support and funding) and possible enforcement. Following corrective action, monitoring will be performed to

determine the effects of compliance on the watershed, which in turn may trigger DEP reassessment and delisting of the affected water bodies.

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

**Project Number:** 1003

**Budget:** \$10,000

**Lead Agency:** DEP 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.

**Project Title:** TMDL Planning

**Project Number:** 1004

**Budget:** \$100,000

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

**Location:** Statewide

**Point of Contact:** Bill Brown, DEP

Pennsylvania entered into a consent decree and agreement with EPA and the groups requiring completion of TMDLs for all water body segments impaired by resource extraction (mine drainage) listed on the 1996 303(d) list by April 2009. This project is to continue the development of TMDLs beyond those required under the consent decree. A portion of the grant funds will be used for the collection of water samples. Each site will be sampled five times over a year period, including at least one sample in each season and flow condition. Sample results will be entered into SIS after sample analysis; uploading into STORET will be done according to established schedules. TMDL development using the data will occur immediately on completion of the project. A portion of the projects funding will be used to contract for development of the TMDLs.

## **Special Projects**

**Project Title:** Monitoring Projects for Improvement

**Project Number:** 1005

**Budget:** \$ 15,000

**Lead Agency:** Bureau of Watershed Management

**Location:** Multiple

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

DEP Division of Watershed Protection staff will work with local watershed and monitoring groups to monitor AMD treatment systems and receiving streams, stream restoration projects and CREP projects in order to gauge the effectiveness of these projects, establish water quality trends, and identify improving water bodies. This project will utilize both field and laboratory testing and will follow the DEP Laboratory's EPA-approved QA/QC procedures. As stream sections within these projects show improvement, they will be referred to DEP's Water Quality Standards staff for reassessment and possible delisting.

**Project Title:** Pennsylvania Senior Environment Corps (PaSEC)

**Project Number:** 1006

**Budget:** \$ 141,200

**Lead Agency:** Nature Abounds

**Location:** Multiple

**Point of Contact:** Cheryl Snyder, DEP; Melinda Hughes-Wert, Nature Abounds

Many PaSEC chapters have struggled to maintain their environmental services to the commonwealth, including stream and lake monitoring (water quality, habitat and macroinvertebrates), mapping abandoned oil and gas wells, eradicating invasive plants, public education and support of watershed associations, since losing state funding in 2007. This project will provide much needed funds to replace worn out equipment, restock reagents, enter monitoring data in an on-line data base, provide refresher training, promote PaSEC accomplishments and recruit new members. It should give the remaining PaSEC members a renewed sense of mission as well as the necessary tools to continue their valuable contributions to federal, state and local environmental goals.

**Project Title:** 2012 Canon Envirothon Planning  
**Project Number:** 1007  
**Budget:** \$ 114,204  
**Lead Agency:** Pennsylvania Envirothon, Inc.  
**Location:** Susquehanna University, Snyder County  
**Point of Contact:** Russell Wagner, DEP; Lorelle Steach, Pennsylvania Envirothon, Inc.

Pennsylvania hosted the first National Envirothon during the summer of 1988. Now the State has been chosen to host the 25<sup>th</sup> anniversary of this “environmental Olympics” in the summer of 2012. The event is scheduled to be held at Susquehanna University in Selinsgrove, PA, July 22-28, 2012, and will feature the current issue topic “Nonpoint Source Pollution and the Benefits of Low Impact Development”. This funding will enable the 2012 Canon Envirothon planning committee to make preparations for hundreds of students, advisors and others expected to participate in North America’s largest natural resource competition for high school students.

### **Implementation Program – Abandoned Mine Drainage**

**Project Title:** Ferris Wheel Revegetation Project – Phase 2  
**Project Number:** 1008  
**Budget:** \$ 169,800  
**Lead Agency:** Clearfield Creek Watershed Association  
**Location:** Little Laurel Run, Cambria County  
**Point of Contact:** Donna Carnahan, DEP; Malcolm Crittenden, DEP; Arthur Rose, Clearfield Creek Watershed Association

Little Laurel Run is an approved Section 319 Watershed Implementation Planning Watershed. This project will revegetate the final 18 acres of a barren 30-acre surface mining site through regrading, application of alkaline and organic soil amendments, seeding and planting native trees and shrubs. This work will substantially reduce the amount of precipitation infiltrating the mine spoil and contributing to abandoned mine drainage (AMD) discharges degrading Little Laurel Run and Clearfield Creek with acidity, iron and aluminum. The regrading and vegetative cover will also reduce the sediment loading to Little Laurel Run, improving aquatic habitat and hastening the return of essential macroinvertebrates and fish to the stream.

**Project Title:** Longs Run LR0-D1 AMD Remediation  
**Project Number:** 1009  
**Budget:** \$ 241,820  
**Lead Agency:** Broad Top Township  
**Location:** Longs Run, Bedford County  
**Point of Contact:** Donna Carnahan, DEP; Malcolm Crittenden, DEP; Ernest Fuller,  
Broad Top Township

The installation of a treatment system on this AMD discharge in the headwaters of Longs Run was a high priority in the Watershed Implementation Plan prepared for this watershed in 2004, but property access issues kept it from being done until recently. The LR0-D1 discharge contributes 39 % of the aluminum and 34% of the acidity that has degraded Longs Run and prompted the development of a TMDL. This project will design, permit and construct a vertical-flow wetland, limestone pond and aerobic wetland that is expected to remove 90% of the aluminum and acidity loading from this discharge, which is the last significant untreated AMD discharge in the watershed.

**Project Title:** Six Mile Run SX0-D8 AMD Remediation  
**Project Number:** 1010  
**Budget:** \$ 417,010  
**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

The construction of a treatment system on this AMD discharge along the main stem of Six Mile Creek is a top priority of the updated Watershed Implementation Plan, completed in 2007. The SX0-D8 discharge contributes 10% of the iron, 7% of the aluminum and 6% of the acidity that has degraded Six Mile Run and prompted the development of a TMDL. This project will design, permit and construct a relocation pipe, vertical-flow wetland, settling pond and aerobic wetland that is expected to remove at least 85% of the iron, aluminum and acidity loading from this discharge. It will also complete stabilization of an existing spoil pile, converting a gray field into a usable area for the local fire company, and provide a geothermal energy source for it.

**Project Title:** MON 30 Design and Permitting Grant  
**Project Number:** 1011  
**Budget:** \$ 50,252  
**Lead Agency:** Lawrence Township  
**Location:** Montgomery Creek, Clearfield County  
**Point of Contact:** Donna Carnahan, DEP; Mario Carrello, DEP; Barb Shaffner,  
Lawrence Township

MON 30 is the third AMD discharge in the Montgomery Creek watershed (known locally as Montgomery Run) to be addressed by Lawrence Township and its partners, the Clearfield County Conservation District and the Montgomery Run Watershed Association. This project will complete a detailed design, permitting and construction bid documents for a passive treatment system that is expected to remove 40 lbs./day of acidity, 4.3 lbs./day of aluminum and 2.5 lbs./day of iron and fully restore water quality in the unnamed tributary on which it's located.

**Project Title:** Kiesinger Site AMD Design  
**Project Number:** 1012  
**Budget:** \$ 42,391  
**Lead Agency:** Anderson Creek Watershed Association  
**Location:** Little Anderson Creek, Clearfield County  
**Point of Contact:** Donna Carnahan, DEP; Mario Carrello, DEP; Malcolm Barnes,  
Anderson Creek Watershed Association

The Kiesinger Site contains a number of diffuse AMD discharges and seeps in a swampy area draining to Little Anderson Creek, identified in the 2006 Watershed Implementation Plan as the principal source of impairment in the Anderson Creek watershed. This project will specifically locate and quantify these discharges, evaluate alternative treatment options, develop a detailed design and complete permitting requirements for a treatment system to eliminate 55 lbs./day of acidity and 11.5 lbs./day of iron from Little Anderson Creek.

**Project Title:** Hubler Run 3 – AMD Construction  
**Project Number:** 1013  
**Budget:** \$ 270,000  
**Lead Agency:** Emigh Run/Lakeside Watershed Association  
**Location:** Hubler Run, Clearfield County  
**Point of Contact:** Garry Price, DEP; Mario Carrello, DEP; Anna Mae Pezzulla, Emigh  
Run/Lakeside Watershed Association

Hubler Run 3 is the third and final AMD discharge identified for remediation in the 2007 Watershed Implementation Plan. This project will accomplish detailed design, permitting and construction of a vertical flow pond and settling basins expected to remove 107 lbs./day of acidity, 3.6 lbs./day of iron and 1.8 lbs./day of aluminum from the stream and permit Hubler Run to be removed from the State's Impaired Streams List. This work will

also go a long way toward meeting existing TMDLs in both Hubler Run and its receiving stream, Alder Run.

**Project Title:** Mary D Borehole AMD Remediation

**Project Number:** 1014

**Budget:** \$ 664,500

**Lead Agency:** Schuylkill Headwaters Association

**Location:** Schuylkill River, Schuylkill County

**Point of Contact:** Garry Price, DEP; Dan Koury, DEP; Bill Reichert, Schuylkill Headwaters Association

Abandoned mine drainage from the Mary D boreholes contributes iron, manganese and acidity to the main stem of the Schuylkill River, causing this remediation project to be classified as a high priority in the 2005 Upper Schuylkill River Watershed Implementation Plan. This project will provide for the final design, permitting and construction of a passive treatment system consisting of a limestone channel, settling pond, aerobic wetland and vertical flow pond, followed by a polishing wetland basin. It is expected to remove all the iron and a total of 316 pounds of metals per day from the discharge at high flow and to make a substantial contribution to meeting TMDLs developed for the watershed.

### **Implementation Program - Agriculture**

**Project Title:** Mill Creek Stream Restoration Project – Phase II

**Project Number:** 1015

**Budget:** \$ 64,250

**Lead Agency:** Lancaster County Conservation District

**Location:** Mill Creek, Lancaster County

**Point of Contact:** Carl Rohr, DEP; Jineen Boyle, DEP; Matt Kofroth, Lancaster County Conservation District

This project includes the design, permitting and construction of 2,200 linear feet of stream bank stabilization and 4,000 feet of stream bank fencing and riparian buffer establishment along an impaired section of Mill Creek, for which a Watershed Implementation Plan was prepared in 2006. This landowner is also working with the Natural Resource Conservation Service and the Conservation District to develop a conservation plan and install barnyard runoff controls and a nutrient management system. This project should significantly reduce the sediment and nutrients entering Mill Creek as well as improve aquatic and wildlife habitat and serve as a demonstration to other landowners in the area of the benefits of this type of restoration.

**Project Title:** Village Farm Nutrient Management Plan Implementation Project  
**Project Number:** 1016  
**Budget:** \$ 45,590  
**Lead Agency:** Bucks County Conservation District  
**Location:** Core Creek, Bucks County  
**Point of Contact:** Carl Rohr, DEP; , DEP; Meghan Rogalus, Bucks County Conservation District

This 14-acre horse farm borders Core Creek just upstream of Lake Luxembourg in Core Creek County Park. These waters are impaired by sediment and nutrients, particularly phosphorus. A TMDL for the watershed was revised and a Watershed Implementation Plan prepared in 2005. This project will reduce sediment and nutrients entering surface and groundwater in the watershed by diverting stormwater from a nearby development around the farm's animal concentration areas and manure storage facilities and by directing roof runoff and other clean water to an infiltration trench and a rain garden. It will also serve as an educational tool and example to other horse farms in the area.

**Project Title:** North Branch Neshaminy Creek Implementation Project – Phase I  
**Project Number:** 1017  
**Budget:** \$ 68,265  
**Lead Agency:** Bucks County Conservation District  
**Location:** North Branch Neshaminy Creek, Bucks County  
**Point of Contact:** Carl Rohr, DEP; , DEP; Meghan Rogalus, Bucks County Conservation District

Agricultural BMPs will be installed on three farms in this watershed identified as major contributors of sediment and nutrients and top priorities for action under an ongoing Watershed Implementation Planning effort. Diversions terraces, rock-lined and grass waterways and grassy swales will be installed, livestock fencing erected and eroded stream banks stabilized and planted to eliminate the movement of sediment and nutrients into the stream from deeply gullied pastures. These three pasture areas are estimated to have lost more than 260 tons of fertile soil to Core Creek as the result of past erosive action.



## **Implementation Program – Stormwater/Urban**

**Project Title:** Greenlick Run Stream Restoration Project

**Project Number:** 1018

**Budget:** \$ 44,346

**Lead Agency:** Fayette County Conservation District

**Location:** Greenlick Run, Fayette County

**Point of Contact:** Joe Kelly, DEP; Rita Graham, DEP; Doug Petro, Fayette County Conservation District

This project will design, permit and install a variety of agricultural BMPs and stream stabilization practices to reduce sediment and nutrient loadings to a segment of Greenlick Run designated a priority site in the recently completed Jacobs Creek Watershed Implementation Plan. Ag BMPs will include barn gutters and downspouts, mine belt diversions on an access road, a stream crossing and a spring development. Stabilization measures including rock toe protection, rock cross veins, coir matting and native revegetation will be applied to 1,200 feet of steeply eroding stream banks. It is estimated that completion of this project will eliminate 15,000 pounds of sediment loading to Greenlick Run annually.

**Project Title:** Shupes Run Stream Bank Restoration – Phase II

**Project Number:** 1019

**Budget:** \$ 88,250

**Lead Agency:** Jacobs Creek Watershed Association

**Location:** Shupes Run, Westmoreland County

**Point of Contact:** Joe Kelly, DEP; Rita Graham, DEP; Michael Barrick, Jacobs Creek Watershed Association

Building upon work completed by Mt. Pleasant Borough in 2005, this project will restore and stabilize stream banks along 1,000 feet of Shupes Run running through Willows Park. Site survey, design and permitting will precede excavation, construction and installation of a riparian buffer. The use of volunteer labor and technical assistance, donated supplies and borrowed equipment will minimize the cost of this project, which will complete the work at Site #110 in the Jacobs Creek Watershed Implementation Plan. Benefits of the project include improved water quality, stream temperature and aquatic habitat.

**Project Title:** Scottdale Stormwater Retrofit – Phase II  
**Project Number:** 1020  
**Budget:** \$ 386,981  
**Lead Agency:** Scottdale Borough  
**Location:** Stauffer Run and Jacobs Creek, Westmoreland County  
**Point of Contact:** Joe Kelly, DEP; Rita Graham, DEP; Barry Whoric, Scottdale Borough

Phase I of this work identified areas for stormwater volume control and constructed seven BMPs at four locations throughout the Borough. This project will design and construct three infiltration trenches or bioretention swales at municipal sites and up to 30 rain gardens to manage residential rooftop runoff. Work will also be done to stabilize the banks of a small unnamed tributary to Stauffer Run. It is expected that the project will eliminate 98% of the copper and zinc, 95% of the sediment and volatile hydrocarbons and more than 40% of the phosphorus running off the municipal parking areas where BMPs will be installed.

**Project Title:** In-Stream Fish Habitat for Pine Creek  
**Project Number:** 1021  
**Budget:** \$ 93,185  
**Lead Agency:** Allegheny County Conservation District  
**Location:** Pine Creek, Allegheny County  
**Point of Contact:** Cheryl Snyder, DEP; Jeff Fliss, DEP; Amy Meyers, Allegheny County Conservation District

The Pine Creek Watershed Implementation Plan identifies stream bank erosion and sediment deposition as a principal source of water quality impairment in the stream. This project will design, permit and install structures and native riparian plantings to stabilize 2,200 feet of stream bank, improve water quality and enhance aquatic habitat. The project will be overseen by a PA Fish and Boat Commission biologist and is expected to reduce sediment entering Pine Creek by 150,000 pounds per year.

**Project Title:** SBCC Innovative Stormwater Management  
**Project Number:** 1022  
**Budget:** \$ 66,029  
**Lead Agency:** Borough of Glen Rock  
**Location:** South Branch Codorus Creek, York County  
**Point of Contact:** Joe Kelly, DEP; Jineen Boyle, DEP; Lucy Cadwallader, Borough of Glen Rock

The Borough of Glen Rock is currently embarked on an initiative to reduce flooding in the town by retrofitting stormwater management facilities and installing new BMPs throughout the community. This project will design, permit and install porous pavement over a gravel municipal parking lot draining directly into South Branch Codorus Creek and construct rain garden/infiltration basins in islands within the lot and along the lower side of the lot, adjoining the stream. Action will also be taken to stabilize an eroding

stream bank along the lower edge of the lot. Benefits of the project include public education about stormwater management techniques, reduced storm water flows into the creek and reduced sediment runoff from the parking lot and the eroding stream bank, contributing to improved water quality in the stream.

**Project Title:** Implementation of BMPs in Watersheds

**Project Number:** 1023

**Budget:** \$ 350,069

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

**Location:** Multiple

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

This project provides financial assistance to implement BMPs identified in watersheds on streams identified as impaired by PA DEP for aquatic uses. These projects can be in watersheds with or without Watershed Implementation Plans that have been accepted by EPA or within watersheds having or not having a TMDL. Funding of BMPs in these watersheds will help reduce nonpoint source loads, achieve load reductions, restore designated uses, and with the ultimate goal of removing stream segments from the DEP Integrated Quality Monitoring and Assessment Report impaired list. Specific project locations and BMPs to be implemented have not been identified at this time. However, before any project is implemented, the proposed scope of work and budget will be submitted to the EPA project manager for approval.

### **Grant Match**

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

**Project Number:** N/A

**Budget:** \$ 1,823,200 (state match)

**Lead Agency:** Bureau of Watershed Management

**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 Management

**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 66 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.