PENNSYLVANIA NONPOINT SOURCE PROGRAM
FY2012 PROJECT SUMMARY

Base Program/DEP Staff

Project Title: Nonpoint Source Program-Bureau of Watershed Management and Regional Offices
Project Number: 1201
Budget: $899,436
Lead Agency: DEP Bureau of Watershed Management
Location: DEP Central Office/DEP Regional Offices
Point of Contact: Doug Goodlander, 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 8.56 work years of effort for NPS activities by regional and mining office staff in each of the DEP Regional and Mining Offices and effort provided within the Central Office to support the implementation and administration of the Section 319 NPS Implementation Program. The positions within the Central Office 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 $133,587 in indirect costs.

Base Program

Project Title: Statewide Lake Water Quality Assessments
Project Number: 1202
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: Monitoring Projects for Improvement
Project Number: 1203

Budget: $15,151
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: TMDL Planning
Project Number: 1204
Budget: $100,000
Lead Agency: DEP Bureau of Watershed Management
Location: Statewide
Point of Contact: Bill Brown, DEP

Included under this project is the continued development of a watershed model(s) that will be tailored to meet the needs of the Pa TMDL and BMP reporting programs. Included in this project is the testing of proposed models, modification of the models based on feedback from testing, and training of staff on the use the accepted model(s). Also included in this project is the continuation of funding to cover DEP lab costs for running water tests to facilitate development of TMDLs throughout the Commonwealth.

Implementation Program – Abandoned Mine Drainage

Project Title: Bilger Run DMP-BR 4.0 Passive Treatment System Design
Project Number: 1205
Budget: $41,000
Lead Agency: Pike Township
Location: Bilger Run, Anderson Creek, Clearfield County
Point of Contact: Donna Carnahan, DEP; Mario Carrello, DEP-Moshannon DMO; Malcolm Barnes, Anderson Creek Watershed Association

Bilger Run is a tributary of Kratzer Run in the Anderson Creek watershed, which is an approved Watershed Implementation Planning watershed. Three AMD priority areas in Bilger Run are in the WIP. One AMD discharge was addressed with the construction of an ALD funded in 2007 by Section 319. This project will be the design and permitting to address another one of the three discharges. The future construction of a system on this discharge will remove 33.2 lbs./day of acidity, 2.3 lbs./day of iron and 3.1 lbs./day of aluminum.

Project Title: MON 71 Design and Construction
Project Number: 1206
Budget: $69,836
Lead Agency: Lawrence Township
Location: Montgomery Creek, Clearfield County
Point of Contact: Donna Carnahan, DEP; Mario Carrello, DEP-Moshannon DMO; William Lawhead, Lawrence Township Supervisors

Montgomery Creek is an approved Watershed Implementation Planning watershed. Some of the top priorities in the watershed have design projects but due to recently discovered bonding issues with an old mining company, construction is not able to occur at this time. Therefore, the township decided to move to this project to make some progress on their plan while demonstrating to the public there is work occurring. MON 71 is a possible borehole from a deep mine that exits through a cistern. The goal of this project is to construct a limestone channel to treat this discharge while providing stability for the channel. Lawrence Township is providing the equipment and manpower to complete the construction. This project will remove 6 lbs./day of acidity, 1 lb./day of iron and 1 lb./day of aluminum.

Project Title: Six Mile Run SX0-D9 AMD Design
Project Number: 1207
Budget: $38,500
Lead Agency: Broad Top Township
Location: Six Mile Run, Bedford County
Point of Contact: Donna Carnahan, DEP; Malcolm Crittenden, DEP-Cambria DMO; David Thomas, Broad Top Township

This project 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-D9 discharge contributes 11% of the iron, 4% of the aluminum and 4% of the acidity that has degraded Six Mile Run and prompted the development of a TMDL. This project will design and permit a treatment system consisting of a combination of a vertical flow wetland and limestone pond with an aerobic wetland at the end. Future construction of this system will remove 56.3 lbs./day of acidity, 12.9 lbs./day of iron and 4.6 lbs./day of aluminum from Six Mile Run.

Project Title: Six Mile Run SX8-D1 AMD Remediation Construction
Project Number: 1208
Budget: $321,390
Lead Agency: Broad Top Township
Location: Six Mile Run, Bedford County
Point of Contact: Donna Carnahan, DEP; Malcolm Crittenden, DEP-Cambria DMO; David Thomas, Broad Top Township

The treatment of this discharge in the headwaters of Six Mile Run is one of the top priorities within the Six Mile Run Watershed Implementation Plan. This discharge contributes 38% of the

iron, 3% of the aluminum and 9% of the acidity loading to the main stem of Six Mile Run. This project will use the design funded by an earlier Section 319 project and construct a system consisting of an ALD, settling pond and aerobic wetland. The system is projected to remove 183 lbs./day of acidity, 43.3 lbs./day of iron and 3.3 lbs./day of aluminum.

Project Title: West Ferris Wheel Passive Treatment, Phase II
Project Number: 1209
Budget: $528,616
Lead Agency: Clearfield Creek Watershed Association
Location: Little Laurel Run, Cambria County
Point of Contact: Donna Carnahan, DEP; Malcolm Crittenden, DEP-Cambria DMO; Arthur Rose, Clearfield Creek Watershed Association

Little Laurel Run is an approved Section 319 Watershed Implementation Planning watershed. This award will fund Phase 2, which will include project oversight and construction of a vertical flow pond and accompanying settling ponds that will address the rest of the West Ferris discharges. Construction of both phases (Phase 1 was funded in 2011) will result in the removal of 246 lbs./day of acidity, 18 lbs./day of iron and 13.5 lbs./day of aluminum from Little Laurel Run.

Project Title: SX0-D7 Relocation
Project Number: 1210
Budget: $60,000
Lead Agency: Broad Top Township
Location: Six Mile Run, Bedford County
Point of Contact: Donna Carnahan, DEP; Malcolm Crittenden, DEP-Cambria DMO; David Thomas, Broad Top Township

In 2007 Broad Top Township was awarded funding to build a system on SX0-D7. The property owner would not give final permission for the project. Therefore it was decided the discharge could be piped and treated with the SX0-D8 system that was just recently awarded by Section 319 in 2010. Therefore this funding will be used for the extra costs of piping the water to the SX0-D8 system and for enlarging the treatment cells for the increased amount of water that will need to be treated.

Project Title: Design and Permitting of the School Trib Mine Drainage Treatment System
Project Number: 1211
Budget: $30,752
Lead Agency: Clearfield County Conservation District
Location: Deer Creek, Clearfield County
Point of Contact: Donna Carnahan, DEP; Mario Carrello, DEP-Moshannon DMO; Kelly Williams, Clearfield County Conservation District

Deer Creek is a newly approved Section 319 Watershed Implementation Planning Watershed. The School Tributary is the number 1 priority in this plan. Three separate discharges affect this small tributary. The Clearfield County Conservation District and Deer Creek Watershed Association has gotten enough funding from various sources to begin surveying and preliminary design for these discharges. This project will allow the partners to complete the final design to apply for future construction. After the system is built, it will remove 230 lbs./day of acidity, 12 lbs./day of iron and 15 lbs./day of aluminum.

Implementation Program – Agriculture

Project Title: Conewago Creek Restoration-Phase III
Project Number: 1212
Budget: $223,500
Lead Agency: Dauphin County Conservation District
Location: Conewago Creek watershed
Point of Contact: Carl Rohr-DEP; Michael Hubler, Dauphin County CD; Jineen Boyle, DEP-SCRO

This project will continue BMP implementation on agricultural lands within the Dauphin County portion of the Conewago. Projects will be targeted to farms with Conservation Plans developed that identify BMP needs. Impaired sub-watersheds within the Conewago Creek will be the primary focus for BMP implementation and practices will help minimize nutrient and sediment loadings to these impaired streams. The Conservation District and NRCS will be the lead agencies in working with farmers to implement the required practices. Fifteen to twenty farms have been identified in the work plan for BMP implementation. The Conewago Creek has a TMDL for sediment and phosphorus, and a Watershed Implementation Plan has been developed. This project will implement work on project sites identified in the WIP.

Project Title: Conowingo Creek Stream Restoration
Project Number: 1213
Budget: $369,500
Lead Agency: Donegal Chapter of Trout Unlimited
Location: Conowingo Creek watershed, Lancaster County
Point of Contact: Carl Rohr-DEP; Robert Kutz, Donegal Chapter TU; Jineen Boyle, DEP-SCRO

This work will continue stream restoration begun under earlier S. 319 grants. Four project sites in the upper reaches of the Conowingo Creek watershed are targeted. Most work will involve stream bank and channel restoration, while agricultural BMPs are planned for two of the project sites. Designs and permits have been completed under Project #2821 for these four sites. Pa Fish and Boat Commission staff has contributed to the project design and permit application, and will provide construction oversight for one site. Donegal Chapter TU will subcontract restoration work to local contractors familiar with this type of stream restoration work. A TMDL has been completed for the Conowingo Creek for sediment and

phosphorus, and a Watershed Implementation Plan was completed in 2006. The project sites are identified in the WIP and these projects will help reduce sediment and nutrient loadings when complete.

Project Title: Continuing Agricultural BMPs in the Upper Kish Creek Watershed
Project Number: 1214
Budget: $455,926
Lead Agency: Mifflin County Conservation District
Location: Upper Kishacoquillas Creek watershed, Mifflin County
Point of Contact: Carl Rohr-DEP; Justin Kozak, Mifflin County CD; Jineen Boyle, DEP-SCRO

Mifflin County will continue to implement the Upper Kish Creek Watershed Implementation Plan and work with farmers to install needed BMPs in this project. A TMDL is currently being developed for the Upper Kish Creek by the SRBC. Three project sites have been identified for needed BMP work, all of which are identified in the WIP. Sites are located in impaired reaches of the mainstem Kish Creek, and involve animal waste management and stream corridor restoration. Completion of these projects will help to reduce sediment and nutrient loadings to the watershed, and complete a 1.2 mile contiguous reach of stream corridor restoration along the mainstem Kish Creek. The Conservation District and NRCS will take the lead in working with farmers, and engineering design work will be subcontracted to an agricultural consulting firm, TeamAg, who has worked on numerous BMP designs in this watershed. Initial load reductions for Nitrogen, Phosphorus and Sediment are estimated as 5,220 lbs/year, 1,167 lbs/year and 247 tons/year respectively.

Project Title: West Branch Antietam Creek Agricultural BMPs
Project Number: 1215
Budget: $100,000
Lead Agency: Chesapeake Bay Foundation
Location: West Branch Antietam Creek, Franklin County

Point of Contact: Carl Rohr, DEP; David Wise, Chesapeake Bay Foundation; Jineen Boyle, DEP-SCRO

This is the NPS Management Program's first project to implement the West Branch Antietam Watershed Implementation Plan (WIP). It is basically a pilot project to see if we can encourage the majority of Plain Folk farmers in the watershed to install riparian forested buffers as well as the agricultural BMPs recommended in the WIP. The Chesapeake Bay Foundation (CBF) will utilize NRCS CREP and EQIP funds in addition to Section 319 money to accomplish this project. Riparian buffers will be installed on at least three farms, totaling roughly 15 acres, and a full complement of recommended BMPs will be installed on at least two farms in the watershed. Section 319 funds, directed through CBF, will be used for education and outreach, project design, technical assistance and ag BMP installation wherever farm owners are unwilling to accept government money directly. Conservation Plans and Nutrient Management Plans (if the farm maintains livestock) will be required of all farms participating in the project.

Implementation Program – Stormwater/Urban

Project Title: Mill Creek Stream Restoration-Phase IV
Project Number: 1216
Budget: $192,520
Lead Agency: Lancaster County Conservation District
Location: Mainstem Mill Creek, Lancaster County
Point of Contact: Carl Rohr-DEP; Matthew Kofroth, Lancaster County Conservation District; Jineen Boyle, DEP-SCRO

This phase of the Mill Creek Restoration project will address urban storm water impaired reaches of the mainstem. Two project sites have been identified where runoff from urban areas has severely impacted stream bank stability and affected stream channel integrity. The Lancaster County Conservation District staff will work with the USFWS, Mill Creek Preservation Association and local contractors; these partners have proven successful working together in Phase I, II and III. Riparian forest buffers will be planted and wetland restoration will occur as part of these projects. Sites are identified in the Mill Creek Watershed Implementation Plan, and the projects will help to meet the WIP goals for reducing phosphorus and sediment loadings to the Mill Creek. Approximately 1,500 tons/year of sediment load reductions will be achieved. The project sites have public access and high visibility, which will hopefully lead to increased interest in stream bank restoration in the urbanized parts of the Mill Creek watershed.

Project Title: Core Creek/Lake Luxembourg BMP Implementation
Project Number: 1217
Budget: $293,900
Lead Agency: Bucks County Conservation District
Location: Core Creek/Lake Luxembourg, Bucks County

Point of Contact: Barbara Lathrop, DEP; Meghan Rogalus, BCCD

Over the last 18 years, two management plans (including a Watershed Implementation Plan in 2005) and three major BMP implementation projects have been accomplished in the Core Creek/Lake Luxembourg watershed. This project will continue that work by retrofitting five existing stormwater detention basins as per the *PA Stormwater Best Management Practices Manual*. In addition, approximately 1,000 linear feet of shoreline will be stabilized along the southwestern shore of Lake Luxembourg with regrading and native plantings. It is estimated that these BMPs will remove approximately 21 pounds of total phosphorus and 56,458 pounds of total suspended solids per year from the lake. Combined with the work accomplished under the last 319 grant (2008), these BMPs will achieve about 56 pounds (7.7 %) of the TMDL's targeted total phosphorus load reduction and about 149,500 pounds (17.4%) of the targeted total suspended solids load reduction. The implementation of this project will constitute a major continuation of previous efforts and a significant step forward toward meeting the required load reductions.

Project Title: Harvey's Lake Stormwater BMPs
Project Number: 1218
Budget: $366,100
Lead Agency: Harveys Lake Boro and EAC
Location: Harveys Lake, Luzerne County
Point of Contact: Barbara Lathrop, DEP; Francis Kopko, Harveys Lake EAC

Over the last 17 years, two management plans (including a Stormwater Implementation Plan in 2010) and four BMP implementation projects have been completed in the Harveys Lake watershed. Two other implementation projects are currently underway. This project will continue that work by installing two large manufactured treatment devices and retrofitting a roadside swale to manage storm waters within the watershed. Provision has also been made to monitor the water quality before and after this work and assess the effectiveness and load reduction capacity of the BMPs. With completion of the two current implementation projects, it is estimated that about 180 pounds per year of total phosphorus will have been removed from the lake. This represents approximately 78 % of the reduction called for by the TMDL. This project has been designed to remove another 50 pounds per year, which is the remaining 22% required to meet the TMDL and remove Harveys Lake from the State's impaired waters list.

Project Title: Hollow Creek Stream Restoration
Project Number: 1219
Budget: $120,800
Lead Agency: York County Community Foundation
Location: Hollow Creek, York County
Point of Contact: Scott Heidel, DEP; Jake Romig, York County Community Foundation; Jineen Boyle, DEP-SCRO

The objective of this project is to restore the remaining portions of Hollow Creek, a tributary of the East Branch Codorus Creek. By restoring 1,400 noncontiguous linear feet of Hollow Creek,

the Hollow Creek Restoration Plan will be complete. The restoration will include modified natural channel design, bank stabilization, flood plain restoration, habitat enhancement and riparian buffer restoration. Hollow Creek is listed in the Codorus Creek Watershed Implementation Plan as the Nixon Park tributary, a priority sub watershed of the East Branch Codorus Creek. The project expects to reduce sedimentation by as much as one million pounds per year and nitrogen and phosphorus by as much as 100 tons and five tons annually.

Project Title: South Branch Codorus Restoration-Phase IV
Project Number: 1220
Budget: NOT FUNDED
Lead Agency: Codorus Creek Watershed Association
Location: South Branch Codorus Creek, York County
Point of Contact: Scott Heidel, DEP; James Leaman, Codorus Creek Watershed Association; Jineen Boyle, DEP-SCRO

Multiple best management practices including natural stream channel design will be utilized in this project which continues restoration work on the South Branch Codorus Creek, the top priority subwatershed within the Codorus Creek Watershed Implementation Plan. The average bank erosion rates along these stream stretches are approximately 1,330 tons of soils lost per year. This project will include the design and implementation of approximately 2,400 feet of stream stabilization to reduce bank erosion and sediment loading while enhancing aquatic habitat. Riparian buffers will be both preserved and created and an ox bow wetland will be developed. This project will be another step toward meeting priorities of the watershed implementation plan and the Codorus Creek TMDL.

Project Title: Crouse Run Stream Restoration
Project Number: 1221
Budget: NOT FUNDED
Lead Agency: Pine Creek Land Conservation Trust
Location: Crouse Run, Allegheny County
Point of Contact: Scott Heidel, DEP; Jan Ridenour, Pine Creek Land Conservation Trust; Jeff Fliss, DEP-SWRO

This project will restore degraded sections of Crouse Run and stabilize an exposed section of sanitary main in the Crouse Run Nature Preserve. The stream suffers severe bank erosion due to flashy flows from storm water leading to sediment deposition. A section of sanitary main running along Crouse Run is also being impacted by erosion over and under the main exposing a section of main to possible damage from stream debris. Work will be done using bank grading, structural enhancements and plantings. The restoration of Crouse Run is identified as a priority in the Pine Creek Watershed Assessment, Protection and Restoration Plan and will lead to reduced sediment loads to Pine Creek.

Project Title: Mt. Pleasant/Shupe Run Stormwater Retrofits
Project Number: 1222
Budget: $60,000
Lead Agency: Jacobs Creek Watershed Association
Location: Shupe Run, Westmoreland County
Point of Contact: Cheryl Snyder, DEP; Michael Barrick, Jacobs Creek Watershed Association; Rita Graham, DEP-SWRO

Located in Mt. Pleasant Borough, in the Shupe Run watershed, this project will build upon projects and planning already done through Mt. Pleasant's Storm Water Retrofit Grants – Phase I and II and focus on priorities in the watershed implementation plan regarding the need for Mt. Pleasant Borough to reduce stormwater impacts. Sites at a residential manufactured home park and an apartment complex will be dealt with to alleviate the stream bed and bank degradation occurring in Shupe Run. Design and planning for stormwater bioretention (rain gardens), underground retention and infiltration Best Management Practices will be done to reduce stormwater runoff, erosion and pollutant transport into Shupe Run.

Project Title: North Fork Pine Creek Stream Restoration
Project Number: 1223
Budget: $22,230
Lead Agency: Allegheny County Conservation District
Location: North Fork Pine Creek, Allegheny County
Point of Contact: Scott Heidel, DEP; Amy Miller, Allegheny County Conservation District; Jeff Fliss, DEP-SWRO

The Pine Creek Watershed Implementation Plan lists the North Fork Pine Creek as a contributor of erosion to Pine Creek. The Plan proposes restoration projects within North Fork Pine Creek watershed. This project consists of stabilizing approximately 495 feet of steam bank, addressing severe erosion and improving fish habitat. In-stream structures will be used including cross vanes, J-hook vane, crib structures and root wads. The project will prevent an estimated 14 tons of soil erosion per year and protect riparian forest vegetation along about 500 feet of flood plain.

Project Title: Ferris Wheel Revegetation (amendment to Project 1008)
Project Number: 1224
Budget: $6,700
Lead Agency: Clearfield Creek Watershed Association
Location: Little Laurel Run, Cambria County
Point of Contact: Donna Carnahan, DEP; Art Rose, Clearfield Creek Watershed Association; Jeff Fliss, DEP-SWRO

Project 1008 is a two-phase project to reclaim a 30-acre mine spoil site by adding alkaline and organic materials to the ground surface. This will be followed by seeding and planting to establish grass cover and trees, which will subsequently reduce abandoned mine drainage leaching from the site and establish grassland and forest. Soil testing conducted during Phase I of the project determined the levels of potassium and phosphorus in the soil are below optimum for revegetation. The watershed group would like to add extra fertilizer to the site for better vegetation growth and needs additional funding to do so. This amendment will provide that funding.

Project Title: South Branch Codorus Innovative Stormwater Management (amendment to Project 1022)
Project Number: 1225
Budget: $44,000
Lead Agency: Glen Rock Borough
Location: South Branch Codorus Creek, York County
Point of Contact: Steve Lathrop, DEP; Lucy Cadwallader, Glen Rock Borough
Jineen Boyle, DEP-SCRO

Project 1022 will complete a porous pavement upgrade to a municipal parking lot in Glen Rock Borough and restore stream banks in an eroded section of South Branch Codorus Creek along one edge of the parking area. Initial estimates of the cost of this work were inadequate, and when bids were sought from contractors to perform the work, the Borough found itself $44,000 short to complete the project. This amendment will provide the additional funding needed to perform all the necessary work and reduce storm flows to a restored segment of the South Branch Codorus Creek.

Project Title: Limestone Run Watershed Restoration (amendment to Project 2831)
Project Number: 1226
Budget: $16,018
Lead Agency: Montour County Conservation District
Location: Limestone Run, Montour County
Point of Contact: Carl Rohr, DEP; Sean Levan, Montour County Conservation District;
Jason Fellon, DEP-NCRO

Project 2831 was awarded to construct a poultry manure storage facility on Seven Springs Farm, which encompasses the headwaters of Limestone Run in Montour County. During the project period, the farm began milking dairy cows and now requires a milk house waste treatment system. The cost of materials and engineering for this system is approximately $15,000, minus a $3,000 cost share from the farmer, for an additional cost on this project of $12,000.

The grant sponsor would also like to secure enough additional funding to plant a riparian buffer on the Jeremy Erb farm along both Limestone Run and an unnamed tributary, excavate a swale around the barnyard and provide engineering costs for the project. This will require an additional $8,380, minus a $4,362 cost share from the farmer, for an additional cost of $4,018 to complete this project.

Project Title: BMP Implementation in Approved Watershed Implementation Plans
Project Number: 1227
Budget: $ 223,125
Lead Agency: DEP, Bureau of Conservation and Restoration
Location: Multiple
Point of Contact: Doug Goodlander, DEP

This project provides financial assistance to construct BMPs identified in Watershed Implementation Plans that have been accepted by EPA. Funding of BMPs in these watersheds will help reduce nonpoint source loads, achieve load reductions identified in the TMDLs and restore designated uses, with the ultimate goal of removing stream segments from the DEP Integrated Water Quality Monitoring and Assessment Report's 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 review and approval.