

## **Growing Greener Watershed Protection Grants March 2010**

### **Allegheny County**

Allegheny County Sanitary Authority -- \$417,500 to construct a treatment facility to treat a mine discharge and reuse the treated water for irrigation at the Grandview Golf Course. The pollution loading to the Monongahela River will be reduced and clean water will be returned to Turtle Creek.

South Fayette Conservation Group -- \$487,853 for stream sealing along Fishing Run to reduce inflow of surface water into the Gladden Mine Complex and reduce flow of mine drainage from the Gladden Discharge. The Gladden Mine Discharge on Millers Run is the highest treatment priority for restoration of Chartiers Creek.

### **Bradford County**

Schrader Creek Watershed Association -- \$291,000 to design and build a passive mine drainage treatment system on Long Valley Run, a tributary to Schrader Creek. The discharge, known as the "#4 Discharge" is the last untreated discharge on Long Valley Run and is ranked as the third largest contributor of mine drainage to Schrader Creek. The project will be constructed on game commission land near a previously reclaimed surface mine. This project has the potential to improve 6 miles of Schrader Creek below where Long Valley Run enters.

Sugar Creek Watershed Association, Inc. -- \$37,380 to survey, design and permit a 4,000 foot stream rehabilitation project along Browns Creek. The main focus of this project is to exclude livestock from the channel corridor and provide a riparian buffer. Structures such as barbs rock and floodplain benches will reduce degrading within the channel and aid in stability.

### **Bucks County**

Bucks County Conservation District -- \$6,280 for the organization and development of the Upper Tohickon Watershed Association

Bucks County Conservation District -- \$44,341 to restore and stabilize 325 feet along the southern shoreline of Magnolia Lake.

Bucks County Conservation District -- \$6,457 for the formal organization and incorporation of the Primrose Creek Watershed Association.

Delaware Valley College -- \$86,000 for seven projects to capture rainfall and reduce impacts from stormwater at the campus. Projects include conversion of a stormwater retention basin to an infiltration basin, wetland creation; and roof runoff capture.

### **Carbon County**

Carbon County Conservation District -- \$162,508 for Phase I of a stabilization and restoration project on a highly destabilized stream reach of Broad Run and Nesquohoning Creek.

### **Chester County**

Brandywine Conservancy -- \$148,473 for four projects on the Brandywine Creek: riparian fencing and restoration on Amish-owned farms in the headwater areas; urban riparian restoration on municipal-owned lands in Coatesville; suburban restoration on an impaired stream corridor in Birmingham Township; and upland restoration.

Red Clay Creek Valley Association -- \$200,000 to restore a portion of the East Branch of the Red Clay Creek using floodplain reconnection, bank stabilization, and wetland creation.

Trout Unlimited, Valley Forge Chapter -- \$83,663 to install Best Management Practices for Stormwater Runoff Reduction at the Conestoga HS practice fields. The project will install a bioretention system along the practice fields at Conestoga High School to reduce stormwater impacts.

Uwchlan Township -- \$50,000 to develop a watershed plan to identify potential stormwater projects that would improve water quality and the hydrologic regime in the Shamona Creek watershed.

### **Clearfield County**

Clearfield County Conservation District -- \$600,000 for construction of the ROSS passive mine drainage treatment system.

Clearfield County Conservation District -- \$48,000 to survey and map, conduct sampling and analyze data, design appropriate passive system, prepare documents and obtain permits necessary to build a mine drainage treatment system on the Little D Chews job on Morgan Run.

Moshannon Creek Watershed Coalition -- \$390,000 for construction of mine drainage passive treatment systems that will abate abandoned mine discharges to the Sandy Ridge tributary of Trout Run, a tributary to Moshannon Creek located near Osceola Mills, PA. These discharges are ranked priority #3 and #4 in the Trout Run restoration plan. Priority #1 and #2 will be affected by anticipated re-mining permits. These projects should restore the Sandy Ridge tributary whose high quality headwaters contain a natural trout population on state game land property.

### **Clinton County**

Clinton County Conservation District -- \$380,000 to construct a mine drainage treatment system for the passive treatment of seven discharges impacting Muddy run, a headwater tributary to South Fork Tangascootack Creek. This project will complete restoration and address all remaining discharges in the Muddy Run and is likely to result in full restoration of this tributary.

Clinton County Conservation District -- \$44,350 for a three pronged project within the Fishing Creek watershed. The first part will stabilize four farm lanes contributing sediment to Fishing Creek. The second part involves the design and installation of educational signage depicting Best Management Practice implementation, High Quality watershed significance, Karst geology and land use interactions, and invasive species awareness. The third piece will be the sampling, analysis and interpretation of 60 manure storage sites in the watershed. Interpretation of results with each landowner as well as watershed workshops will be conducted.

### **Cumberland County**

Lower Allen Township -- \$55,298 to plant an urbanized forested riparian buffer along 720 linear feet of stream impaired by urban runoff. Streambank stabilization, removal of invasive species and planting of native plants will also take place in this area.

### **Delaware County**

Pennsylvania Resources Council -- \$18,455 to present a series of educational sessions for residents in partnership with a local watershed organization. The programs will combine two existing curricula: one about riparian land stewardship for private residential properties, and one about rain barrels. The sessions will include the distribution of materials and the assembly of rainbarrels that participants will take home for their use.

Springfield Township -- \$105,168 to construct new stormwater Best Management Practices at the municipal campus and redirect stormwater runoff from existing storm sewers into the new stormwater control measures. Runoff volume and peak rate will be reduced, as will pollutants and storm-derived sediments. This project is one of several that were designed for this site using a previous Growing Greener grant. The applicant also has a second grant-funded project in progress now.

### **Elk County**

Toby Creek Watershed Association -- \$178,000 to reduce operating costs and implement energy recovery measures at the Blue Valley Mine Drainage Treatment Facility.

### **Erie County**

Millcreek Township Supervisors -- \$265,000 for streambank stabilization, riparian buffer enhancements, and hydraulic flow improvements to an 1800 foot reach of Walnut Creek, a tributary to Lake Erie. These stream improvements will be conducted in conjunction with DCNR and the PA Fish & Boat Commission to provide fish habitat improvements and increased public recreation opportunities along this reach of the stream.

### **Fayette County**

Western Pennsylvania Conservancy -- \$9,450 for alkaline sand addition for treatment of acidity within the Glade Run Watershed. Water quality improvements have been realized since the first alkaline sand addition project was started in 1998.

### **Greene County**

Greene County Conservation District -- \$182,033 to combine stream bank restoration and agricultural Best Management Practices to address stream impairments on Ruff Creek and Pumpkin Run.

### **Huntingdon County**

Huntingdon County Conservation District -- \$215,550 to establish agricultural Best Management Practices for rotational grazing on six farms within agriculturally impaired watersheds. These watersheds are specifically identified as impaired by siltation from poor grazing practices. Improvements will include cattle walkways, interior/exterior/streambank fencing, stream crossings, spring developments, wells, heavy use pads and pipelines.

### **Indiana County**

Blackleggs Watershed Association -- \$252,000 to permit and construct a passive treatment system for mine drainage discharge #9 on Whiskey Run within the Blackleggs watershed. The design phase has been completed with a Growing Greener grant.

Western Pennsylvania Conservancy -- \$225,340 to address nutrient and sediment issues in Ross Run. The project proposes installation of agricultural Best Management Practices such as streambank fencing, stream crossings, roof runoff controls, and water control structures. In addition, two miles of dirt/gravel roads in the Ross Run watershed will be repaired. Riparian buffers will also be established in some areas of the watershed. Post construction sampling and monitoring will be used to gauge project efficiency.

### **Lackawanna County**

Lackawanna River Corridor Association, Misty Ridge Project -- \$52,000 to re-contour approximately one acre of badly eroded north bank of the Lackawanna River.

### **Lancaster County**

Octoraro Watershed Association -- \$52,300 to provide technical assistance to develop conservation plans for plain-sect farmers in the Octoraro watershed.

### **Lawrence County**

Ellwood City Borough -- \$113,174 for reduction of urban runoff, improving water quality by infiltration and removal of non point source pollutants in the Connoquenessing Creek Watershed. Best Management Practices will be implemented throughout Ellwood City which will serve as an educational tool for innovative and effective stormwater management.

### **Lehigh County**

Wildlands Conservancy -- \$332,025 for restoration of Swabia Creek, a limestone tributary of the Little Lehigh Creek.

### **Luzerne County**

Earth Conservancy -- \$400,000 to design a mine drainage treatment system for the Askam Borehole mine discharge. The system will include an oxidizer, settling pond and relocation of 2000 feet of Nanticoke Creek.

Luzerne County Conservation District -- \$445,345 to complete the restoration and stabilization of a nearly 2,200 foot long section of Toby Creek within Luzerne Borough.

West Wyoming Borough -- \$357,425 to restore a riparian buffer and rehabilitate Abraham Creek in an area severely eroded during the 2006 flood.

### **McKean County**

McKean County Conservation District -- \$262,352 for design and construction of agricultural Best Management Practices on six priority farms in the Two Mile Creek watershed. This project is expected to fully restore water quality in the waterway and will include practices such as nutrient management planning, barnyard stormwater management and stabilization, streambank stabilization, and the creation of 20 acres of new forested riparian buffer.

### **Mercer County**

City of Sharon -- \$100,000 to eliminate severe erosion caused by stormwater runoff in several locations along Pine Run, a tributary to the Shenango river. The anticipated environmental results are streambank stabilization of Pine Run, along with reduction in sediment and stormwater runoff.

Mercer County Conservation District -- \$7,325 for organization of the Cool Spring Creek Watershed Association. The focus of the group will be to identify current and historical land use practices and provide community education on best management practices.

### **Montgomery County**

Montgomery County -- \$277,339 to replace most of the concrete and stone pavement on the existing multi-level County Courthouse plaza in downtown Norristown with a vegetated (green) roof. The project will reduce the volume and peak rate of stormwater runoff from the area, mitigating existing problems with combined sewer overflows to the Schuylkill River.

Perkiomen Watershed Conservancy -- \$109,072 for a project to bridge the gap between stormwater regulations, and privately owned and controlled stormwater management systems. This project includes retrofits at two residential subdivisions, education and outreach and monitoring in order to assess results.

### **Multiple Counties**

Cameron County Conservation District -- \$6,145 to support an early detection-rapid response control program for invasive species in the Sinnemahoning Creek watershed. The local cooperative weed management group is requesting additional

funds to address knotweed infestation on numerous properties and the replanting of shrub/forest buffers.

Chesapeake Bay Foundation -- \$250,000 to provide technical assistance to plainsect farmers in impaired watersheds using a whole-farm conservation approach that promotes buffers and core agricultural Best Management Practices.

Montour County Conservation District -- \$210,969 for the Mount Airy Farm Manure Handling and Barnyard Improvement Project. Plans include elimination of cattle access to two tributaries of the Chillisquaque Creek, manure storage, heavy use area and runoff handling systems. This project will address multiple nutrient and sediment sources on an impaired stream. Two conservation districts are assisting and the landowner is contributing \$50,000 in matching funds. Nutrient management plans and stormwater improvements will be other beneficial aspects of project.

Northampton County Chief Executive Office, Northampton County Conservation District -- \$73,650 to create demonstration examples of several Best Management Practices. These demonstration projects will contribute significant improvements to water quality in the Lehigh Valley while providing sites others can visit to see how these practices work.

Penn Soil Resource Conservation & Development Council -- \$75,000 for a joint project involving several Resource Conservation and Development Councils to improve water quality by preventing agricultural sediment and nutrients from reaching streams in northwest PA through outreach and on-the-ground construction of Best Management Practices.

Pennsylvania Association of Conservation Districts -- \$583,184 to provide engineering technical assistance to conservation districts, watershed organizations and other eligible entities. The engineering staff can identify problems, research solutions, identify engineering needs, estimate costs and identify assistance needed to implement solutions. Types of projects include agricultural Best Management Practices, stream restoration and treatment of abandoned mine drainage.

Pennsylvania Envirothon -- \$135,456 for planning and outreach. The Envirothon is Pennsylvania's largest natural resource/environmental science competition for youth in grades 6-12. More than 15,000 students participate annually. This project will provide funding to continue the Envirothon in 2010.

Pennsylvania Horticultural Society -- \$250,000 to fund Phase VI of TreeVitalzie, a public-private partnership initiated in 2004 to restore tree cover in the five-county southeastern PA area. This project will focus on implementing riparian buffer projects.

Pennsylvania Lake Management Society -- \$250,000 to design and implement lake Best Management Practices including riparian buffer establishment, control of

invasive species, and shoreline stabilizations. The project will also provide for PA Lake Management Society conferences for outreach to lake communities.

Pennsylvania State University -- \$146,835 to study the effect of varying nutrient and light on natural biofilms collected from Pennsylvania streams. The result of this study will assist water quality management agencies in making decisions relative to nutrient management.

Susquehanna River Basin Commission -- \$115,000 to maintain and enhance a DEP-funded water quality database and analytical tool used in the West Branch of the Susquehanna River.

Trout Unlimited -- \$100,000 to continue their successful Acid Mine Drainage Technical Assistance Program which provides abandoned mine drainage assistance to watershed groups, Trout Unlimited chapters and other organizations. Proposed assistance includes rapid AMD characterization, rapid AMD watershed snapshot, conceptual design of AMD treatment systems, biological surveys, existing treatment system evaluation and recommendation, monitoring plan development and technical capacity building.

Western Pennsylvania Coalition for Abandoned Mine Reclamation -- \$100,000 to fund the Quick Response Program which provides funding for emergency repairs of Growing Greener projects, particularly where not repairing the project would lead to environmental degradation or more costly repairs in the future.

### **Northampton County**

Lehigh Valley Economic Development Corporation, Slate Hills Grayfield Reclamation Project -- \$600,000 to complete reclamation a hazardous abandoned slate quarry and utilize the property for commercial purposes. The five-acre abandoned quarry poses a public health and safety hazard due to the 2,380 linear feet of sheer highwall and 700 foot depth. The project would reclaim the quarry with the 1.4 million cubic yard pile of slate refuse adjacent to the quarry which will eliminate a significant safety hazard and promote economic growth in this densely populated area.

### **Philadelphia County**

Greenfield Home and School Association -- \$200,000 for site improvements to the Greenfield School, a public school in the Philadelphia School District. It is located in center city in an intensely urban environment. A group organized by students' families and school staff has developed a plan for transforming the exterior of the school property from mostly impervious surface to a vibrant green space. The renovated school site will manage most of the stormwater runoff produced at the site, and mitigate existing problems with combined sewer overflows to the Schuylkill River.

### **Schuylkill County**

City of Pottsville -- \$504,000 for Phase VI of the reclamation of the cropfall mine subsidence features on Sharp Mountain in the City of Pottsville. The mine

subsidence pose a major health and safety hazard and there is little on-site material available to use as backfill. This phase builds on the previous successful phases which beneficially reuse discarded materials to construct a structural plug to fill the cropfall holes on the surface. The project will address some of the most severe subsidence within the overall project area. By reclaiming the subsidence there will be a reduction in surface water infiltration which will reduce mine drainage pollution to the Schuylkill River.

### **Somerset County**

Paint Creek Regional Watershed Association -- \$306,000 to treat three acid mine drainage sources along Weaver Run, a tributary to Paint Creek. Passive treatment of these low-metal discharges will restore 1.2 miles of stream and reduce the pollution load to the Stonycreek River Basin.

Somerset County Conservation District -- \$24,338 to implement a rain barrel initiative in Somerset Borough. The district proposes to install up to 200 rain barrels at residences to reduce storm water runoff and sediment deposition in Coxes Creek. In addition, the project will educate the local populace and government officials as to the value of using rain barrels to help prevent flooding and to increase future participation in the program

Wells Creek Watershed Association -- \$257,249 to reclaim nine small coal refuse piles covering one acre and treat a deep mine discharge with a limestone bed. This project will add alkalinity to the fishery on Wells Creek and improve water quality in the Stonycreek River.

### **Union County**

Union County Conservation District -- \$98,000 for a permanent riparian buffer installation and incentive program for Union County waterways. The district will offer implementation and incentive payments to qualifying landowners to establish permanent riparian buffers. Union County will defend easements in perpetuity. A minimum 35-foot buffer will be established on up to four miles of stream.

### **Venango County**

Venango Conservation District -- \$225,000 for design and construction of up to 10 stormwater Best Management Practices in the Lower Two Mile Run watershed, including forested riparian buffers, infiltration trenches, vegetated swales, rain gardens/bioretention, and other approved practices. The initiative is intended to reduce the impact of recent significant commercial development in the watershed.

### **Westmoreland County**

Kiskiminetas River Watershed Association -- \$117,143 to repair the Jamison Mine Borehole Discharge mine drainage passive treatment system located on Wolford Run, which is part of the Kiskiminetas River Watershed. Repairs will consist of borehole renovation and the cleaning of three settling ponds.

Sewickley Creek Watershed Association -- \$150,000 for the Westmoreland County Community College riparian buffer and stormwater management retrofit project on



the highly visible college campus parking area that drains directly to a small tributary impacted by runoff.

### **Wyoming County**

Mehoopany Creek Watershed Association -- \$350,000 for the final construction phase of the Windy Valley stream restoration project on Mehoopany Creek.

*Editor's Note: The following is a list by county of the \$3.9 million in EPA Section 319 Non-Point Source Grants*

### **Allegheny County**

Allegheny County Conservation District -- \$93,185 for 2,200 linear feet of stream improvements to improve fish habitat For Pine Creek.

Audubon Society of Western Pennsylvania -- \$90,000 to construct rain gardens within the Pine Creek watershed with a capacity goal of 2 million gallons of storage.

### **Bedford County**

Broad Top Township -- \$241,820 to design and construct a passive treatment system to treat acid mine drainage at the headwaters of Longs Run. The limestone treatment is designed to reduce acidity loading within the stream by 90 percent, iron by 85 percent, aluminum by 90 percent and manganese by 50 percent. This treatment will restore two-thirds of a mile of stream and bring significant improvement to Longs Run.

Broad Top Township -- \$417,010 to design and construct a pipeline and passive treatment system to treat mine drainage along Six Mile Run. The limestone treatment is designed to restore one mile of stream.

### **Bucks County**

Bucks County Conservation District -- \$45,590 to implement the Village Farm Nutrient Management Plan. Proposed Best Management Practices will address storm water issues and promote ground water infiltration and recharge.

Bucks County Conservation District -- \$68,265 for construction of agricultural Best Management Practices on three farms located within the North Branch of the Neshaminy Watershed.

### **Cambria County**

Clearfield Creek Watershed Association -- \$169,800 to reclaim 18 acres of bare acidic mine spoil to reduce acid runoff and erosion into Little Laurel Run.

### **Clearfield County**

Emigh Run/Lakeside Watershed Association Inc. -- \$270,000 for design, construction, oversight and project management for two vertical flow ponds and settling basins to treat the final priority mine discharge on Hubler Run.

Lawrence Township -- \$50,252 to design and permit a passive system to treat a mine discharge known as MON 30 on a tributary of Montgomery Creek, which is a tributary of the West Branch Susquehanna River. The project, in cooperation with the Clearfield County Conservation District and the Montgomery Run Watershed Association, will design a treatment system for the third priority discharge as identified by the Montgomery Creek Restoration Plan. Treatment of the MON 30 discharge should restore the entire unnamed tributary

Pike Township -- \$42,391 to study the discharges from the Kiesinger mine site, design a treatment system, develop bid documents and obtain necessary permits to build the treatment system.

### **Erie County**

Erie County Conservation District -- \$247,825 to implement Best Management Practices on Trout Run and Godfrey Run as described in the Watershed Implementation Plan created for these watersheds. Practices include streambank stabilization, agricultural Best Management Practices, and outreach and testing of onlot septic systems for residents in the watershed. Monitoring and assessment activities will measure improvements to water quality.

### **Fayette County**

Fayette County Conservation District -- \$44,346 for a comprehensive stream bank and agriculture Best Management Practices project designed to address an identified priority site in the Jacobs Creek watershed. The project will address all impairments on the only impaired segment of Greenlick Run.

### **Lancaster County**

Lancaster County Conservation District -- \$64,250 to complete 2,200 feet of restoration work, including bank stabilization, cattle exclusion fencing and riparian buffers along a farm in Mill Creek in partnership with US Fish and Wildlife Service.

### **Multiple Counties**

Nature Abounds -- \$141,200 to provide technical assistance and support to established statewide Pennsylvania Senior Environment Corps programs in the form of training, equipment and an online database of water quality monitoring data. The Senior Corps was initiated by DEP in 1997 to engage older adults in water quality monitoring to supplement Pennsylvania's Water Quality Network.

Pennsylvania Envirothon -- \$114,204 for planning for the 2012 Canon Envirothon. The 2012 Canon Envirothon will mark the 25th anniversary of the program in PA which has grown to include presentations from 45 states and nine Canadian provinces.

### **Schuylkill County**

Schuylkill Headwaters Association -- \$664,500 to design and construct a system to treat the 1.7 million gallon per day discharge of mine drainage from the Mary D Borehole into the Schuylkill River.

### **Venango County**

South Sandy Creek Watershed Association -- \$30,000 to sample and identify the contents of a coal refuse pile to determine if it can be burned for fuel by a co-gen power plant. Removal of the pile will abate one of the largest sources of acid mine drainage in Williams Run.

### **Westmoreland County**

Jacobs Creek Watershed Association -- \$121,830 to implement Best Management Practices for agriculture, stormwater and streambank stabilization on Little Sherrick Run.

Jacobs Creek Watershed Association -- \$128,650 to implement Best Management Practices for agriculture and streambank stabilization to control sediment and nutrients on Brush Run.

Jacobs Creek Watershed Association -- \$88,250 for streambank restoration on Shupes Run.

Scottdale Borough -- \$386,981 to implement Best Management Practices to control stormwater volume from commercial parking areas and a residential neighborhood that affects the Jacobs Creek Watershed.

### **York County**

Codorus Creek Watershed Association -- \$100,000 for continued implementation of stream restoration Best Management Practices to eliminate non-point source pollution from sediment and nutrients in the South Branch Codorus Creek watershed.

Codorus Creek Watershed Association -- \$211,128 to implement Best Management Practices for agriculture, stormwater and streambank stabilization in the Barshinger Creek watershed.

Glen Rock Borough -- \$66,029 to renovate the borough parking lot to reduce runoff, and stabilize the Codorus Creek streambank through several techniques to infiltrate stormwater including porous pavement/concrete.