

Kettle Creek Watershed Association News

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\$576,712 Funded through Growing Greener for AMD Remediation

Through the second round of the Growing Greener Program, the DEP has awarded the KCWA, in partnership with Trout Unlimited, \$576,712 for AMD remediation in the Twomile Run watershed. Award announcements were made in early December. This award will help to fund the Twomile Run surface reclamation project and – pending approval of two \$100,000 grants from the Office of Surface Mining for the AMD projects – it will also help to fund the Robbins Hollow passive treatment system.

The objective of the Twomile Run surface reclamation project is to regrade and “bio-cap” 57 acres of abandoned surface mine land and establish a permanent vegetative cover. This Robbins Hollow Surface Mine, mined back in 1966, is a significant source of AMD to Twomile Run, and in turn to lower Kettle Creek and the West Branch of the Susquehanna River. The Bureau of Abandoned Mine Reclamation is providing the plans for regrading and private consulting company Gannett Fleming is preparing the rest of the project design. The regrading of the surface mines is important to control erosion on the site and to reduce surface infiltration; otherwise the water that soaks into the ground will come into contact with acid forming materials and create AMD. The plans for vegetation include Elk vegetation seed mix as requested by the DCNR Sproul District Bureau of Forestry and additional native shrubs and trees for wildlife habitat.

Also included in the Twomile Run surface reclamation is the installation of three separate subsurface drains. The drains will allow samples to be taken from numerous AMD seeps of the “Swamp Area” so that the effectiveness of the surface reclamation project can be measured and evaluated.

Surface reclamation is only the first of a two-stage treatment plan for this specific area. Once vegetation is successfully established, the next stage is to construct a passive treatment system.

AMD discharges that pollute Robbins Hollow will not be affected by the surface reclamation project, so a passive treatment system is necessary to treat this source of pollution. The passive treatment system will be similar to the one that was recently constructed on the Middle Branch. Hedin Environmental is the private consultant that is providing the design for this project. Basically, the system will include vertical flow ponds, a sedimentation pond, a wetland, and an alkalinity generating limestone bed. Successful treatment of this AMD, which contains the highest iron concentrations in the Twomile Run watershed, will result in the restoration of approximately 2,420 feet of Robbins Hollow and reduce a significant source of AMD to Twomile Run.

The planning of these projects has resulted from the efforts of the KCWA AMD Committee, including representatives from the Department of Environmental Protection, Bureau of Abandoned Mine Reclamation, Trout Unlimited, Clinton County Conservation District, Natural Resources Conservation Service, Sproul District Bureau of Forestry, Senator Jake Corman’s office, and PA Fish & Boat Commission. In addition to the work that is currently underway in the Twomile Run watershed, the Bureau of Abandoned Mine Reclamation continues to investigate sources of AMD pollution on the west side of Kettle Creek.

What is “bio-capping”?

“Bio-capping” will combine an organic soil (WesTan Soil Plus) and fine soils already on-site to produce a substrate that will promote the growth of vegetation. The WesTan Soil Plus is a byproduct of the vegetable leather tanning process of Westfield Tanning Company. It is registered with the PA Department of Agriculture and DEP. This material has been used extensively and successfully by agriculturists and companies involved in mine reclamation. WesTan Soil Plus is a good source of organic carbon and nitrogen (from cattle hides and tree bark) and its high alkalinity gives it a good buffering capacity for the typical high acidity of AMD. There is absolutely no human septage in WesTan Soil Plus – that is why the KCWA AMD Committee, under suggestion of Gannett Fleming, decided to use this material. Other sources of biosolids are rather controversial and sometimes still questionable.

For more information on this program or any Kettle Creek watershed projects, please contact the Kettle Creek Watershed Coordinator, Amy Gottesfeld by e-mail: agottesfeld@hotmail.com or phone: (570) 726-9907.

Annual Meeting to be Held in Cross Fork

The KCWA is holding its annual meeting on Saturday, March 31, at 7:00 PM at the Kettle Creek Hose Company in Cross Fork. Please plan to attend and bring a friend! Refreshments will be provided. We will be reviewing the projects in Kettle Creek that have already been completed and discussing all the projects that are scheduled to start in the next few months, including the Headgate stream improvement project and AMD remediation projects.

Growing Greener Awards \$100,000 towards Headgate Project

The KCWA, in partnership with Trout Unlimited, was also awarded \$100,000 from this last Growing Greener round toward the Headgate Project, a stream habitat improvement project on 2530-ft of Kettle Creek in Stewardson Township, Potter County. \$146,670 was the original amount requested in the grant proposal. The KCWA is currently working to obtain the remaining funds. If the additional funds are not acquired, the project may have to be scaled down a little. Dave Putnam, a wildlife biologist with the US Fish and Wildlife Service, is providing the design plans for this project. The US Fish and Wildlife Service will also implement actual construction.

The stream reach was chosen as a project site because it has an actively migrating meander bend that is threatening to cut into the adjacent roadway, Rt 144, and is suffering from severe bank erosion in numerous places. Because the roadway is of major concern at this location, the PA Department of Transportation has committed their partnership in this project. They have allotted \$30,000 in material costs for the project. This partner-

ship with PennDOT is wonderful and hopefully it becomes part of a trend for PennDOT activity in preventative maintenance coordinated with environmental benefits.

The Headgate Project will be very similar to the three projects already constructed on Kettle Creek in the past year. The locations of these three projects are at PA Fish and Boat Commission property on Delayed Harvest/Fly-Fishing Only Section, behind Deb's Place Restaurant, and the first one constructed is just above Cross Fork. As with these projects, natural stream channel design techniques will be incorporated. This includes the regrading of streambanks and the use of J-hooks, cross vanes, rock vanes, and natural material revetment to enhance fish habitat, improve bank stabilization and the riparian vegetative cover, and to reduce downstream sediment load. To date, a total of 2,765 ft of streambank and instream habitat has been improved in the Kettle Creek watershed, and the downstream effects of each project result in even more habitat benefits than the actual length of stream worked upon.

Lower Kettle Creek Restoration Plan Completed

Last December 1999, Trout Unlimited contracted Hedin Environmental through a Community Foundation grant to develop an acid mine drainage (AMD) assessment and treatment plan for the lower Kettle Creek watershed. The final document was released on November 15, along with an excellent presentation given by Bob Hedin to the KCWA board and KCWA AMD Committee. This Lower Kettle Creek Restoration Plan is one of the first of its kind in Pennsylvania to be developed on such a comprehensive scale from a watershed perspective. The focus of the Restoration Plan is on Twomile Run, the largest source of AMD to the lower watershed. Within the Twomile Run watershed, AMD from abandoned deep mines and surface mines pollutes Middle Branch, Huling Branch, Robbins Hollow, and the main branch of Twomile Run. This Plan is very important to planning for the overall restoration of lower Kettle Creek watershed in that it outlines treatment strategies for critical problem areas, taking into account the benefits of each to the rest of

the watershed and cost-effectiveness.

The treatment recommendations of the Plan include surface reclamation of spoil piles and the treatment of discharges using passive and chemical treatments. A passive treatment system was recently constructed to treat discharges that pollute the Middle Branch. Work on the Twomile Run surface reclamation project and Robbins Hollow passive treatment system will begin this spring. With the successful implementation of these projects and several others that are still under study, over 8 miles of streams in the Twomile Run watershed and 6 miles of Kettle Creek will be greatly improved. With every step we take, we come closer to the ultimate goal of restoring a quality fishery to these waters. With every remediation project, we also reduce the loading of AMD into the West Branch of the Susquehanna River.

Thank You and Reminder to Our Partners

The KCWA wishes to thank all the volunteer monitors of the Partners Program who took time to monitor their assigned sites last year. We look forward to working with you again this year! The opening day of trout season is not far away, so that means it will soon be time to visit your site(s) again and take samples. In addition to the water quality tests, be sure to note any habitat changes you observe at your site, or even at your favorite fishing spot.

If for any reason, you cannot continue to be a volunteer monitor, please let us know so we can re-assign your site(s). Please contact Dick Sodergren at ktlcrik@aol.com or (814) 355-9798.

Watershed Landowner Surveys were Sent

Surveys were sent in the beginning of January to all landowners in the Kettle Creek watershed. The survey is a project of the KCWA done in conjunction with the Clinton and Potter County Conservation Districts. Funding was provided through a DEP Environmental Educational Grant. The purpose of the survey is to get a better idea of how many people are aware of the KCWA and our activities and to see what watershed issues are most important to its residents. If you are a landowner in the watershed and did not receive a survey, please contact Kettle Creek Watershed Coordinator, Amy Gottesfeld at (570) 726-9907 or agottesfeld@hotmail.com. The results of the surveys will be summarized in the next newsletter.

State of Your Watershed Meeting in November

On November 2, 2000 the KCWA held a "State of Your Watershed" public meeting at the Kettle Creek Hose Company in Cross Fork. The purpose of the meeting was to gain local feedback on the activities of the KCWA and the issues of the watershed. Meeting participants were divided into "round table" discussion groups. Graduate students from the Center for Watershed Stewardship (those working on the Keystone 2000 Project of Kettle Creek) were assigned to groups as facilitators. The concerns that were most commonly raised by meeting participants were bank stabilization and erosion, thermal problems, and acid mine drainage. Thanks to all who participated in the discussions.