

# Kettle Creek Watershed Association News

Enhance  
Preserve  
Monitor  
Protect



Volume II, Issue 2

September 2000

## *Kettle Creek Watershed - A Trout Unlimited Home Rivers Program*

### Growing Greener Projects Completed

In April, the KCWA and Trout Unlimited were awarded \$47,295 in Growing Greener funds toward a total project cost of \$184,170 for two stream habitat improvement projects. The remaining amount was covered through additional grants and in-kind services from the Department of Community and Economic Development (\$10,000 awarded to KCWA by Senator Jake Corman), Trout Unlimited, the Federation of Fly Fishers, the PA Fish and Boat Commission, and a DEP grant administered by the Clinton County Conservation District. The US Fish and Wildlife Service played a lead role in the project designs and contributed much of the actual construction costs for the projects. A total of 3 projects have now been completed on Kettle Creek – the first one completed in November 1999, located upstream from Cross Fork village.

The first Growing Greener project was constructed on a 600 ft reach of Kettle Creek behind Deb's Place res-

taurant (as shown in picture looking upstream at project with J-hook in foreground) in Leidy Township, Clinton County. The Natural Resources Conservation Service and Clinton County Conservation District surveyed the reach and



together with the US Fish and Wildlife Service, they provided the project design. Two cross vanes and one J-hook were constructed to improve bank stabilization, thus reducing the movement of significant amounts of sediment into the stream, and to enhance fish habitat. The regrading of the bank to a gentler slope (generally a

3:1 gradient) is also an important part of bank stabilization that helps to lessen the amount of sediment entering the stream through erosion.

A spring located at the base of the mountain across the creek from the restaurant is an important source of coldwater to Kettle Creek. Over the years, sediment deposits have built up around this coldwater source, preventing fish from direct access to the coldwater they so desperately need during the hot summer months. In time, the flow diversion and scouring action created by the cross vanes and J-hook should help to improve the thermal refugia at this location.

*Thermal refugia is just another name given to coldwater habitat available to fish.*

The maximum water temperature trout can tolerate for optimal growth and reproduction is approximately 72 degrees F. Higher temperatures create con-

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Governor Ridge signed the "Growing Greener" initiative into law on December 15, 1999, investing nearly \$650 million in Pennsylvania's environment over the next five years. This is the largest single investment of state funds in PA history to help improve the environment. In May, the General Assembly passed the 2000-01 budget, which includes \$135 million to fund the second year of the five-year "Growing Greener" initiative. These funds come from \$100 million in new money from the General Fund and \$35 million in funds redirected from the Recycling and Hazardous Sites Cleanup funds. DEP's share for each of the next four years is \$50.5 million. For more information visit the [www.GrowingGreener.org](http://www.GrowingGreener.org) or call 1-877-PAGREEN.

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Watershed Association**

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For more information or to inquire about becoming a member:

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Or contact our Kettle Creek Watershed Coordinator for more information:

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## 2<sup>nd</sup> Round of Growing Greener Proposals

The KCWA and TU submitted four proposals for funding through the Growing Greener Program this second round, which was due August 11. The awards are expected to be announced in late October.

The grant proposals are for:

Surface reclamation on unreclaimed and poorly reclaimed abandoned surface mines that contribute the first significant AMD discharges to Twomile Run (above the "Swamp Area"). BAMR provided the plans and cost estimates for regrading and private consultants Gannett Fleming provided the plans and additional cost estimates for the topsoil/organic or "bio-capping" materials and revegetation plans. We are proposing to use WesTan Soil Plus from the Westfield Tannery as the organic material (as opposed to the somewhat controversial biosolids). Total grant request is \$576,712.

Passive treatment system for discharges that directly pollute Robbins Hollow and ultimately Twomile Run. Hedin Environmental provided the conceptual design plan. Total grant request is \$260,100.

- Collection system for the Huling Branch. At this time, the treatment alternatives for the AMD of Huling Branch is anyone's guess because the problems are so severe. Hedin Environmental provided the conceptual design plan for a collection system that will be built utilizing French drains to capture AMD discharges to the Huling Branch. This will allow for better characterization of the AMD chemistry and a for a more accurate assessment of flow. Total grant request is for \$35,000.

Stream habitat improvement for a 2530-ft reach of Kettle Creek in Stewardson Township, Potter County, along Route 144 between Cross Fork and Oleona. PennDOT has already committed \$30,000 in time and materials towards the project. The project will incorporate natural stream channel design using rock vanes, cross vanes, and natural material revetment, similar to the other projects recently completed on Kettle Creek. Total grant request is for \$146,670.



### Continued from page 1, "Growing Greener Projects Completed"

siderable stress for the trout. No matter how much food may be available, trout will not grow and their chances for survival rapidly decrease with such warm water. Much of this stress comes from their requirement for abundant dissolved oxygen; the higher the temperature, the lower the dissolved oxygen.

The second Growing Greener project was constructed on over 1100 ft of Kettle Creek within the PA Fish and Boat Commission's "Delayed Harvest/Fly-Fishing Only" section in Stewardson Township, Potter County. Here, two cross vanes, one J-hook, and root wads and mud sills were put in place. The root wads provide excellent fish habitat and the mud sills strengthen the streambank.

Keep posted because there will be a workday coming up next spring to plant trees and more vegetation at both sites. We will need your help!

## Partners Program Update

Back in April, KCWA members and local landowners were asked if they wanted to “adopt” a particular section of the Kettle Creek watershed to monitor. The response was wonderful and we now have over 20 partners (individuals or camps) that have volunteered to become part of our Partners Program.

Partners were required to attend one of two stream monitoring workshops held at Ole Bull State Park in May and June. At the workshops, participants were trained to measure pH, alkalinity, and dissolved oxygen using Hach Kits, and to record habitat observations. Our thanks and appreciation go out to all the partners for their time and efforts spent on Kettle Creek and other tributaries in the watershed this summer. We look forward to continuing to work with you.

The chart below summarizes the monitoring data collected through the Partners Program between May and early September.

Section		Alkalinity		DO mg/L	Water Temp F		
		mg/L	pH		Min	Max	Ave
1-3	Mainstem	24.9	7.0	10	55	74	63
	Tribs	38.6	7.2	10	56	70	62
4-6	Mainstem	23.2	6.9	9	48	76	63
	Tribs	25.8	7.2	10	56	66	61
7-8	Mainstem	32.2	7.3	10	63	74	68
	Tribs	23.2	7.0	10	56	70	62
9-10	Mainstem	25.5	7.0	10	47	79	66
	Tribs	16.2	6.8	10	54	62	58
11	Mainstem	20.3	6.9	9	63	86	74
	Tribs	4.6	5.3	10	56	76	61

**Sections 1-3:** Headwaters of Kettle Creek downstream to confluence of Little Kettle Creek, includes subwatersheds of Germania Branch and Little Kettle Creek

**Sections 4-6:** Kettle Creek from its confluence with Little Kettle Creek downstream to mouth of Hammersley Fork, includes the Cross Fork subwatershed

**Sections 7-8:** Kettle Creek from confluence with Hammersley Fork downstream to Trout Run, includes the Hammersley Fork subwatershed

**Sections 9-10:** Kettle Creek from mouth of Trout Run to Owl Hollow, includes Trout Run subwatershed

**Section 11:** Kettle Creek from Owl Hollow to the mouth of Kettle Creek at Westport, includes Twomile Run subwatershed



Participants in the stream monitoring workshop watch and take notes as Amy Gottesfeld demonstrates how to take water samples.

Overall, water temperatures in the Kettle Creek watershed were good this summer, particularly when compared to water temperatures of the past two summers that frequently rose above 73 degrees F. However this year, Kettle Creek mainstem temperatures, which were typically recorded between 12:00 noon and 5:00 pm (the water reaches its warmest temps around 4:00 pm), averaged just under 64 degrees F along with an average air temperature of 74 degrees F. The Kettle Creek watershed has had normal flows almost all summer until late August when water levels finally dropped below normal as designated by the US Geological Survey (for more information, check out their web page at [www.usgs.gov](http://www.usgs.gov) and search for “Pennsylvania water data”).

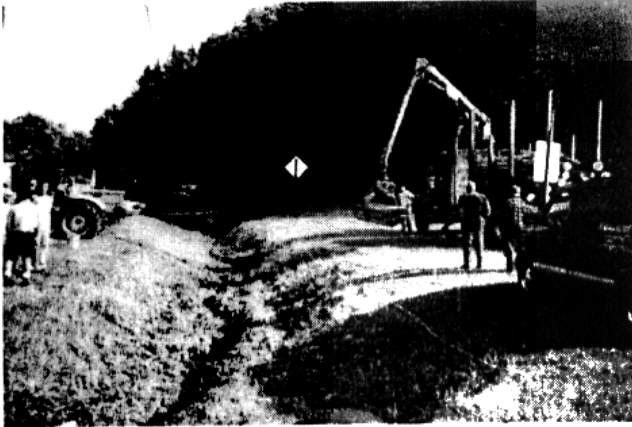
The KCWA wishes to recognize the PA Association of Conservation Districts, PA Chesapeake Bay Program, and the DEP for funding to make the stream monitoring workshops and Partners Program possible.

## Germania Branch Adopt-A-Stream Project Completed

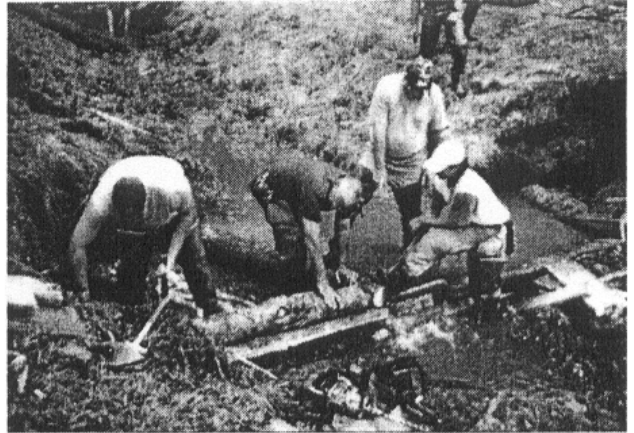
Fifteen volunteers, along with a crew from the PA Fish and Boat Commission, worked all day one Saturday in July to construct waterjack dams on Germania Branch in the village of Germania. The three waterjack dams function to create better fish habitat and the scouring action of the water will help to maintain holding pools for fish. Some locals mentioned that in time, they would like to once again have a children's fishing derby at this spot on Germania Branch.

The project could not have been completed without the help of members from the Twomile Run Gun Club in Westport. Their expertise in building waterjack dams comes from over 10 years of being involved with the Adopt-A-Stream Program; their club sponsored and built nearly a dozen waterjack dams in the headwaters of Twomile Run (home to many beautiful little brookies). Also, Abbott Township graciously donated the use of their backhoe, along with two hardworking township supervisors to run the backhoe and assist with other project duties.

Much thanks to everyone who gave a helping hand that day!



A look at the headwaters of Germania Branch before the project.



Dean Mertz (center left) and John Larson (center right) help PA Fish & Boat Commission crew position a log.



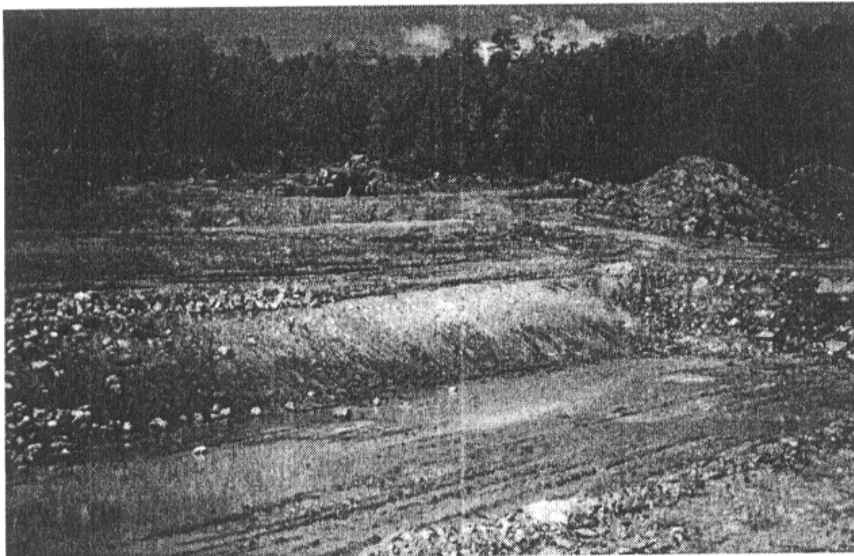
## Middle Branch SAP System Completed

The SAP (successive alkalinity-producing) System designed to treat AMD discharges to the Middle Branch was completed in mid-August. The PA Bureau of Abandoned Mine Reclamation designed the system and contracted the work to E.M. Brown, Inc. of Clearfield for a bid amount of \$234,267.

The system's two vertical flow alkalinity-producing ponds, settling basin, aerobic wetland, and two limestone treatment

beds will treat approximately 50 gpm of mine drainage. The unique component of the system is that one of the limestone treatment beds will be inoculated with a Pyrolusite microbiological system. Developed and patented by two professors from Frostburg State University, this technique should help to reduce the high concentrations of manganese found in AMD. If monitoring data indicates that the inoculated limestone bed is performing significantly better than the untreated bed, then that bed will be inoculated as well.

Approximately 1.5 miles of the Middle Branch, a major tributary to Twomile Run, is expected to be restored by this passive treatment system. We are anxious to see how the entire system will function and will keep you updated in our newsletters.



Excavated vertical flow ponds during system construction.

## Don't Miss the Spectacular Fall Foliage of Kettle Creek

The changing of summer greens to autumn reds, oranges, and yellows are always something to look forward to in the northern tier of Pennsylvania. Of course for those that eagerly await the first snowfall in pursuit of winter sports, chilly Friday nights spent cheering at the local football game and tantalizing aromas of home-baked pumpkin pie only whet our anticipation of Jack Frost. However, before you winter enthusiasts dust off your snowshoes or as others of you would rather just bundle up to endure the wrath of winter, be sure to take time to enjoy all that Kettle Creek and the surrounding areas have to offer for fall foliage. The peak fall foliage for the northern tier is expected to fall between September 27 and October 12. But, with the way it is looking, it will most likely be around the first week in October.

The following is a list of places to visit and things to do that you may want to include in your journey through Kettle Creek this fall, even if only to take a quick break from some fishing:

Bucktail Lodge and Restaurant, Route 120 West, Westport (570) 923-2472  
Kettle Creek State Park - Park Office (570) 923-6004, Campground Reservations 1-888-727-2757  
Kettle Creek Tackle Shop, Hammersley Fork (570) 923-1416  
Deb's Place - Home of the Bubba Burger, located just south of Cross Fork (570) 923-1619  
Cross Fork Inn (570) 923-1258  
Cross Fork Motel (570) 923-0602  
Cross Fork Tackle Shop (570) 923-1960  
Kinney's Country Store and Bar, Cross Fork (570) 923-0459  
Quiet Oaks Campground, Stewarts Hill Rd (570) 923-2386  
Ole Bull State Park - Park Office (814) 435-5000, Campground Reservations 1-888-727-2757  
Godra's Oleana Country Store, Oleona (814) 435-2622  
Mountain View Gift Shop, Oleona (814) 435-3484  
Susquehannock Forest Cabins, Oleona (814) 435-6577  
Carter Camp Lodge & Store, Rts 144 and 44 (814) 435-1192  
Germania Hotel (814) 435-8851  
Germania Store & Lodge (814) 435-6555  
Waldheim Restaurant, Germania (814) 435-8815



Renovo's Fall Foliage Festival will be held October 13-15 this year.

There are literally hundreds and hundreds of hiking trails within the watershed, many of them with breathtaking vistas. But remember, take only pictures and leave only footprints.

The 52-mi Donut Hole Trail System takes you through Sproul State Forest in Clinton County. Call the Sproul District Bureau of Forestry at (570) 923-6011 for more information.

The 86-mi Susquehannock Trail System passes through much of the watershed in Potter County. Call the Susquehannock District Bureau of Forestry at (814) 274-8474 for more information.

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## KCWA Annual Public Meeting, Hard to Compete with Beautiful First Day of Trout Season

The KCWA held its annual public meeting on April 17, 2000 at the Kettle Creek Hose Company in Cross Fork. Unfortunately the beautiful spring weather combined with the excitement of the first day of trout season kept more people out in the stream than inside at the meeting.

Nevertheless, some good topics were covered and several new members were gained. KCWA President John Larson opened the meeting and Amy Gottesfeld, Kettle Creek Watershed Coordinator, discussed 1999-2000 accomplishments and what to expect in the upcoming years. Among the things to look forward to include more stream habitat improvement projects and AMD remediation work, Penn State University's Center for Watershed Stewardship Keystone 2000 Project for the watershed, and a "Kettle Creek Watershed Handbook for Landowners." Joe McGurrin, TU's Director of Resources, explained fiscals and long-term goals for the Kettle Creek Home Rivers Program. KCWA board member and AMD activist Dean Mertz talked about the history of AMD in the lower Kettle Creek watershed and how plans for remediation have been progressing over the past couple years. Dick Sodergren, KCWA Vice-President and chair of the KCWA Fish Habitat Advisory Committee accompanied his presentation about stream habitat improvement projects with a nice slide show. Amy Gottesfeld wrapped up with a presentation on preliminary stream assessment findings.

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**Cross Fork, PA 17729**

Address Correction Requested



## **Kettle Creek Presentation at PA Trout Membership Meeting, Oct. 15**

PA Trout is holding its annual fall membership meeting at the Comfort Inn near Lamar, Clinton County, on Saturday and Sunday, Oct. 14-15. Kettle Creek Watershed Coordinator, Amy Gottesfeld, will be giving a presentation on the Kettle Creek Home Rivers Project of TU on Sunday, Oct. 15 during the morning session which begins at 9 a.m. For additional information, contact Amy Gottesfeld at (570) 748-1638 or [agottesfeld@tu.org](mailto:agottesfeld@tu.org).

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## **Keystone 2000 Project Off to a Good Start**

Last April, the KCWA proudly announced that Penn State University's Center for Watershed Stewardship had chosen the Kettle Creek watershed for their Keystone 2000 Project. There will be a team of 11 graduate students with diverse backgrounds (i.e. landscape architecture, fisheries, forestry) working on the Keystone 2000 Project.

The students got off to a good start in early September with a tour of the watershed from top to bottom. They are already hard at work gathering background information and making local contacts. Probably one of the most beneficial aspects of this project for the students will be working at a local level on watershed issues rather than learning how to deal with such things through a textbook. Tentative Project activities include public input meetings, watershed assessment and characterization, development of GIS thematic maps, evaluation of management alternatives, and education and outreach programs. The project will come to an end following the students' release of a watershed stewardship report in May 2001.

## **Kettle Creek to be Featured on TUTV**

In early June, the film crew from Trout Unlimited Television (TUTV) spent several days filming and fishing in the Kettle Creek watershed. KCWA Vice-President Dick Sodergren guided show host Tim Linehan to some of the best fishing spots on the Kettle. Although the weather was overcast and rainy, Sodergren and Linehan were successful in landing an abundance of gorgeous brownies.

The film crew also took time to meet with Kettle Creek Watershed Coordinator, Amy Gottesfeld, and tour around the lower part of the watershed that is polluted with acid mine drainage. Gottesfeld discussed the AMD problems and took them on-site to observe construction of the Middle Branch passive treatment system.

TUTV is a national conservation-based outdoors program. Currently, last year's shows are being rebroadcast on ESPN. New shows, including Kettle Creek, will begin to air on ESPN2 sometime after October. Check TUTV's website at [www.tutv.org](http://www.tutv.org) for updates and show summaries.

