



TURTLE TRACKS WINTER 2003 EDITION

OFFICIAL NEWSLETTER OF THE TURTLE CREEK WATERSHED ASSOCIATION

Annual Meeting -
March 25, 2003 7:00 p.m.

Why Bother to Stabilize Streambanks?

Streambank Reclamation Projects

People often wonder why TCWA finds this work so important. Our next in a series of these ventures will be starting in the spring. Taking a look at this project and the issues surrounding it will show why.

At the top of Pitcairn, Dirty Camp Run flows through Sugar Camp Park. An unnamed tributary enters from the west near the pavilion. As is often the case in southwestern Pennsylvania, it is a first order stream, running along the base of a steep hillside which forms one eroded bank. Compounding this problem, the other eroded bank drops quickly from the level of the parking area. These steep sides with the accompanying drop in elevation make the stream prone to flooding and the conditions associated with it.

The overflowing water and crumbling banks that we can see so readily are just a part of the problems that occur.

Without any vegetation to hold it in place during a significant precipitation event, the streambank soils are washed away. This increases the sediment load in the water, directly or indirectly affecting life processes for aquatic organisms. While suspended in the water column, this soil material reduces visibility and stream fauna's

potential for visual identification of food sources. The amount of sunlight is also reduced, affecting plantlife. Soil particles also clog gill membranes making gas exchange difficult. If particles have sharp or jagged edges, plant and animal tissues are abraded. Streambanks are further scoured by these particles as well - putting even more sediments into the water.

As the water flows onward, velocity slows, and the sediments are deposited in the channel. Now the spaces between gravel particles or larger stones become filled, smothering these important habitats for small benthic organisms and fish eggs.

The goal of this and all our reclamation projects is to create a more natural, more gradual angle from the streambed to the top of the bank. This is then stabilized with rock material, sometimes a planting "blanket," then planted with native, non-invasive species out onto the top of the bank to create a stable riparian area. These plantings are designed *not* to be mowed. Their root systems will hold the bank material in place, and their leaves will intercept raindrops before they can dislodge the soil. Rainwater now has a chance to slowly enter the stream or infiltrate down into the water table.

The importance of stabilization is clear. Its effects are far-reaching. Consequently, we will continue this work. Our thanks go to the volunteers who have made these projects successful. We appreciate your help!

Two Views of our Next Streambank Stabilization Project – Pitcairn



Sugar Camp Park –
unnamed tributary of Dirty Camp Run
Looking downstream at mild erosion problems.
(Allegheny County project on Pitcairn Road
underway in the background.)



Sugar Camp Park –
unnamed tributary of Dirty Camp Run
Looking upstream at the worst
of the erosion problems.

Project Updates

Borland Farm Road Abandoned Mine Drainage (AMD) Remediation; Phase I and Phase II

Completion of the total project will significantly reduce or eliminate the iron, aluminum, and pH problems associated with the Delmont Mine Discharge. Responsible for nearly 25% of the pollutant load entering Turtle Creek, the mine water will enter an anoxic limestone drain and settling ponds to be constructed. As a result, water quality will be dramatically improved for six miles of the Upper Turtle Creek sub-watershed. The PA Fish and Boat Commission can return that section to the list of approved trout waters.

Landowner agreements have been signed. Necessary permits have been applied for. The project for removal of the coal pile has been advertised, and bid packages have been sent to interested contractors. The bid opening will be held on March 12th. Work should begin in April.

Borland Farm Road AMD Remediation; Phase III

Contracts have been signed and returned. We are awaiting a PennDOT appraisal of the property. Once completed, negotiations for the purchase will begin.

Export Mine Discharge Remediation

The first phase of work has been completed. Ten treatment options were evaluated and recommendations made regarding each one. A passive system would require a large tract of land which is not available. Several options required continuing operation of mechanical systems and maintenance of them. Funding for this is not available. Dilution would require large volumes of clean water which is unavailable or exceptionally costly. The most practical solution is to redirect

the mine pool from the Export Mine, now emptying into Turtle Creek near Export, into the Irwin Syncline with the other mines in the area. Water would exit in Brush Creek in Irwin where, along the rest of the polluted water, it will benefit from the limestone geology of the area. This strategy will allow metals to be naturally removed and at the same time raise the pH to a more normal level.

However, before any project can be recommended or designed with any degree of confidence, there are questions to be answered. The precise location of the mine's rooms, pillars, and haulways is critical. The condition of the coal barrier under Old Route 22 must be determined. The degree of subsidence must be determined. The potential for more subsidence must be determined. More flow data must be recorded.

Presentations have been made to the four communities involved - Export, Murrysville, Trafford, and Irwin. Support to do what is necessary to obtain this information, in preparation for designing an effective solution, was given by all of them.

Ultimate success of this and the Borland Farm Road projects will result in eleven miles of the watershed being returned to an active fishery, so it is very important to insure that all aspects have been considered. To acquire adequate funding for this work, a grant from the PA DEP Growing Greener Program has been applied for.

OSM Intern

The Office of Surface Mining, under the US Department of the Interior, is funding summer internships for watershed organizations in coal mining states. TCWA has applied to the program as a sponsoring organization. If we are selected, the intern will be working on water monitoring, development of educational materials for school and community use, and website maintenance.

TCWA Honoree

At the Allegheny County Sportsmen's Banquet on Saturday, March 8th, the TCWA honored Board Member Craig Barras as our Man of the Year. His unflagging dedication to the organization demonstrated in so many ways, plus his leadership with scout projects, streambank stabilization work, and special events such as Earth Day, Stream Cleanup Day, and trout stocking made Craig the obvious choice. Our thanks and congratulations to him!

TCWA calendar

Saturday, April 12th

Trout season opens.

As has been the case for the past few years, Turtle Creek will be stocked between the Saunders Station Bridge and Trafford.

Saturday, May 31st 11:00 - 3:00

Fun Day at BY Pond in Trafford

The pond will be stocked with trout for our annual children's fishing tournament. Prizes will be awarded, a raffle will be held, and a variety of demonstrations and displays will be on site. Adults without licenses can help out their favorite small fry, but in order to actually fish, a license will be required for those 16 and over.



Join Us !! Become a member of the Turtle Creek Watershed Association and become a partner in a dynamic local conservation effort. A broad base of financial and volunteer support from local individuals, families, communities, businesses, and industry will allow all of us together continue improving the quality of life in this region. (Don't forget - it's tax deductible!)

Membership Form 2003

Name: _____

Individual \$10 Family \$15

Address: _____

Organization \$25 Small business \$50

Life \$100 Corporate \$150

E-mail: _____

Other \$_____

Phone: _____ (h)

Please make checks payable to:

Turtle Creek Watershed Association

Mail to:

325 Commerce Street, Suite 204

Wilmerding, PA 15148

_____ (w)

Thank you very much!

412/829-2817 phone

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