



TURTLE TRACKS FALL 2006 EDITION

OFFICIAL NEWSLETTER OF THE TURTLE CREEK WATERSHED ASSOCIATION

Stormwater Management

Many Related Issues

Last year we talked a bit about the causes and effects of erosion and sedimentation and their relationship to stormwater management. This edition will expand a bit upon the stormwater aspect we looked at before.

We all know about flooding, and some of us have experienced it first hand. Damage occurs to residential yards, driveways, sheds, basements, foundations, and sometimes first floors. Businesses can also be hurt, as can roads, bridges, water and sewer pipes, power lines, and other infrastructure. But there is more to it than that.



Hurricane Ivan flood damage TCWA

Excess Stormwater Runoff

Impervious surfaces such as roads, parking lots, roofs, and modestly pervious surfaces such as most lawns do not allow rainfall to naturally percolate down into the soil to the water table below. Instead, rainwater runs off these surfaces, often quickly in substantial amounts, and it goes somewhere, impacting something.

In addition to flooding, some of the problems that are created by too much initial runoff include:

- combined sewer overflows and sanitary sewer overflows where raw sewerage escapes,
- drinking water source contamination where surface waters become polluted by runoff toxins,
- erosion where land is washed away,
- sedimentation where eroded materials are deposited in stream channels – raising flood potential,
- habitat destruction where streams become unfit for recreational use,
- lowered water tables where wells, stream base flows, and water treatment effluent levels are impacted,
- streambank destabilization where bank sections collapse into channels – blocking them, adding more sediments, and/or damaging adjacent property.

All of these consequences have substantial costs associated with them that are paid by individuals, insurance companies and rate payers, sewer and water authorities and rate payers, local governments and tax payers, and state and federal governments and tax payers.

Note the number of times the term “payers” was used. This means that even if we do not experience a flood directly, ALL of us end up paying the costs through our local, state, and federal taxes, our utility bills, and our insurance bills.



OH DEQ

GEO Cities

Without Change, Our Problems Will Increase

Right now, even with some municipalities changing their ordinances, the amount of initial stormwater runoff continues to increase across our watershed. More people than ever are being harmed by water quantity and quality issues. We need to work together and to be smarter about the way we do things to reduce the amount of initial stormwater runoff.

Our traditional system involves creating runoff on a site-by-site basis, then piping it away to the nearest stream without consideration of upstream water contributions, receiving stream conditions, or downstream effects. As understanding of our problems improves, it becomes clear that the many newer methods of stormwater and runoff management will reduce the extent of existing problems, reduce the rate of future increases in those problems, reduce the associated costs, and reduce the future legal liability that our communities now face.

What is TCWA Doing to Improve Things?

TCWA is approaching this situation on a number of fronts. First, we are part of the Inter-Municipal Environmental Forum (IMEF). This is a working group of watershed communities, Allegheny and Westmoreland County agencies, Duquesne University, and private professionals. Over the last two years we have given over a dozen presentations and workshops (and two forums) to elected officials; municipal staffs, boards, solicitors, and engineers; and other stakeholders to encourage better comprehensive stormwater planning and practices.

Second, acknowledging the connections between land use and water quality/quantity issues, we are collecting land use data from our communities. To date, 27% of our 33 municipalities have responded to an in-depth survey about codes, policies, and practices that contribute to non-point source pollution, runoff volume, and flooding potential. The survey and the interpretative results report are also intended to stimulate thought and discussion about ways to reduce our problems by improving our management systems.

Third, IMEF is working with Landbase Systems to create a GIS planning tool that will show where rainfall actually goes once it hits the ground in our watershed. How much impervious or pervious surface it crosses, where does it flow into a catch basin or stream, how much water is already in that catch basin or stream, etc. are all critical pieces of data that show how best to manage stormwater at any point. Knowing whether to infiltrate it, detain it, detour it, spread it, or pipe it is one key planning method.

Fourth, we are developing a strategy for building a better Act 167 Stormwater Management Plan Update. Our original plan was completed in 1991. At that time DEP's goal in funding these documents was to do a better job of watershed-wide planning, rather than continuing to use the standard site-by-site, community-by-community approach that had failed us so badly. DEP also expected to supply 75% of the funding to update these every five years, with the counties providing the other 25%. However, money became scarce and this phase never occurred.

Here in the Turtle Creek watershed, we are working to position ourselves well to secure funds from a variety of sources within the next few years. In addition to simply updating release rates and adding water quality provisions, we know that we need a channel assessment to identify the areas with the most runoff damage and the reasons for it. Incorporating these real world conditions into the planning process will reduce the chances of inadvertently making a bad situation worse, or creating one where none exists now.

Stormwater Education

Through a Heinz Endowment grant TCWA received to enhance our stormwater education programs, we hired a Program Coordinator to expand community education. Amy Namachar brings a background in broadcast radio and public relations to TCWA. This is a great fit in today's non-profit world. If your classroom or organization would like to schedule a program, please contact our office.

Project Updates

Abandoned Mine Drainage

1. Delmont Mine - we are now looking at the larger mine water drainage picture, examining the water volume contributions of the mine pool to Turtle Creek, rather than focusing narrowly on the discharges at Borland Farm Road. To do that, we applied for a Growing Greener Grant to fund a more detailed evaluation of the White Valley area by CME Engineering who would then develop a new treatment strategy and design. The U.S. Office of Surface Mining (OSM) is interested in helping us with this work.

2. Export Mine - right now Interstate Acquisition Services of Pittsburgh is working to address all the land access details for this project as well as for the Delmont and Irwin Mine projects. Once this work is finished, GAI can begin again to further expand data collection with OSM's assistance with boring and camera work. Once we understand all the factors to be considered, then we can develop a good project design suited to site conditions.

3. Irwin Mine - we also applied for a Growing Greener Grant for this project. There is quite a bit of interest in Harrisburg for this project, so we were originally optimistic about our chances for funding. However, as more money for the watershed portion of the Growing Greener Program has been diverted to other purposes, chances for receiving any funding decrease. Grant announcements are expected before November.

Streambank Stabilization

1. Saunders Station - a grant project via the Canaan Valley Institute funded a channel assessment from approximately Haymaker Run in Murrysville downstream to Trafford by Confluence Ecological. Using this document as a first step in a comprehensive plan, TCWA has also been meeting with DCNR and a group of stakeholders including Monroeville, Murrysville, Penn Township, the Regional Trail Corporation and several trail groups, Westmoreland

County, and others to look at ways to best preserve the valley. We all intend to do so in ways that will address issues such as stormwater management and preventing future washouts, creating a secure route for the Saltsburg to Trafford Trail, preserving land and water habitats, and protecting recreation options. Other stakeholders have been invited to participate, and we hope they will join us in future meetings.



Turtle Creek Gorge Study Area

TCWA

Inter-Municipal Environmental Forum

1. Stormwater Seminars - over the last year, we have given a variety of presentations, workshops, and seminars to elected officials, municipal staffs, solicitors, and engineers, highlighting new legal liabilities, regulations, and effective stormwater management methods that afford better protection for everyone at lower initial costs for developers and lower long term maintenance costs for municipalities.

Calendar

TCWA meetings

Room 220 The Castle 7:00 p.m.

October meeting & stormwater forum - Oct. 24th

November meeting changed to December 5th

No meeting in December

January 30th

February 27th

March 27th - Annual Meeting at 6:00 p.m.

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, business, 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 2006

Name: _____

Address: _____

E-mail: _____

Phone: _____ (h)

_____ (w)

Permission to list donor name: Yes No

- | | | | |
|---|-------|---------------------------------------|----------|
| <input type="checkbox"/> Individual | \$10 | <input type="checkbox"/> Family | \$15 |
| <input type="checkbox"/> Life | \$100 | <input type="checkbox"/> Organization | \$25 |
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| <input type="checkbox"/> Corporate | \$150 | <input type="checkbox"/> Other | \$_____. |

Please make checks payable to:
Turtle Creek Watershed Association

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Thank you very much!



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