



TOBYHANNA CREEK  **TUNKHANNOCK CREEK**
WATERSHED ASSOCIATION
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PRESIDENT'S MESSAGE

By
Larry Gould

As we march on into the year 2011 we here at the Tobyhanna Creek/Tunkhannock Creek Watershed Association continue to work hard. We continue to monitor streams and waterways in our area, and have expanded our volunteer stream watch program to include more stream watch monitors.

We have recently upgraded our two ISCO water samplers, which should help us to obtain more data to better analyze our water and act accordingly based on the results we receive. We have created a new system to have our water analyzed by a professional laboratory and feel that this will provide us with more accurate results with which we can chart and create more detailed statistical data. While we have always performed these tests, this new method, in conjunction with the ISCO water samplers, should provide us with greater detail.

We recently met with a representative from USGS (US Geological Survey), and had a training session in regards to water quality and testing. We continue to train and learn, so that we may be effective watchdogs. Our stream watch program is in need of volunteers. I welcome any volunteers to contribute just a small amount of time to help us in our endeavors. We are also seeking several new Board Members to replace those that have recently moved or can no longer serve. Please express any interest that you might have by contacting us immediately. I personally invite you to get involved. Being a Board Member is a very nice experience and I can assure you that you will feel very fulfilled by it.

I am please at our progress thus far and I am confident that we shall continue to help the environment by maintaining our pro-active practices. I sincerely hope to hear from more of you and welcome any thoughts, ideas and/or suggestions.

Sincerely,
 Your President
 Larry Gould

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An Adventure in Sampler Structure Relocation!

By
Deb Anderson

Since I'm very new to this organization and the lingo that goes with measuring, tabulating, and recording data for water quality, etc., I will tell you up front that this article may have a few misnomers and/or misinterpretations. Nonetheless, it was an extraordinary event for me.

Around 5 p.m. on a sunny afternoon in October (the 28th to be exact) Bill Manner, Trish Attardo, and I met on PA 423 in PA State Game Land No. 127, Coolbaugh Township, Warnertown Bridge over Tobyhanna Creek (to be precise) to move a sampler structure to a safer place for the winter and because DOT had marked and removed trees to within 15 feet of the structure with trees flagged beyond it because of the construction of a new bridge. A fourth person who was supposed to join us was having an unfortunate brake issue with his vehicle and, understandably, could not make the appointed time and place on that particular afternoon. We could have postponed the project yet another day but all were in favor of at least trying to relocate the sampler structure while the weather was pleasant, since forecasted weather was dipping down to freezing.

I parked on the northbound side of Route 423 in my Dakota 4x4 pick-up (the truck designated to carry the sampler), Trish pulled in to the open space on the opposite side of the road and Bill (who had gotten there first) began checking out the location of the sampler structure. You could almost feel his disappointment at the daunting prospect of the three of us attempting to extract that sampler station from its ideal little knoll and bring it out to the roadside over a couple hundred yards of stubble, rubble, and uneven ground.

Not only were there only three of us to hoist and carry that bulky, cumbersome little building with our mere six hands but I was wearing "large" waders on my "medium" feet (borrowed gear from a fishing friend) and felt unsteady simply walking over to the creek bed and skittering down the shallow bank on my behind side, carrying nothing but myself.

Not to waste this perfectly lovely afternoon, Trish proceeded down into the fast moving water (it had rained for two days previously) to locate and cut the tubing away from the weight that was holding them in place. In a fine balancing act on slippery rocks, she succeeded in loosening the ends of the larger PVC pipe which housed the sensor and water tube. Meanwhile, Bill prepared the structure on the top of the bank for moving. He emptied several layers of material placed there by small animals as bedding and removed the tubes from the pipe underneath. Now for sawing the legs of the sampler structure to enable the move from its present location. After some discussion about a chain saw and the time and effort it would take to fetch it, along with consideration for the lateness of the hour, Bill knelt down and began sawing. He did a commendable job of sawing the first leg, a few hazards (buried stones) obstructed the second leg with limited assists from me and with Trish helping on the third leg, Bill finished up, having contributed to most of the sawing on all four legs.

So now what? Should we? Shouldn't we? Discussion ensued and before you know it, we decided that we would be able to get plenty of help next Saturday morning (early) to extract the sampler structure and carry it out to the roadside to be trucked to Paula's backyard.

Resolved that we would be working Saturday in the chill of 30 degrees instead of the present high 50s, we carried tools, hoses, gauges back to Trish's car. As the final items were placed in the back of the car, the roar of a 1200 Harley Sportster, subsequent downshifting, and sudden stopping of same brought us to attention. What in the devil could that person want of us, pulling over to the side of the road near my truck? Time freezes, my heart skips a beat, and I realize it is my husband, relieving his tension, cares, and woes with a fast ride through the countryside. In unison, we all experienced an "Ah Ha" moment and I queried Phil – Could you? Would you?

So, the end of the story was a happy one for all of us as Phil took the front end of the structure by its legs, and we three maneuvered the back end over stubble, rubble, and uneven ground to the truck bed; lifted it into the bed; drove it to Paula's backyard; and removed the sampler station structure to its safe and secure final destination for winter storage. The timing of every part of the process was essential to the end result as 10 minutes after we offloaded the sampler, darkness seeped into the woods and headlights were required to get us out of Pocono Pines and safely on our way home.

2010 MACROINVERTEBRATE SURVEY OF THE TC/TCWA WATERSHED

This past fall was the fourteenth year for our macroinvertebrate survey of the watershed. A total of fifteen sites were surveyed, including five sites by the County Planning Commission and ten by the TC/TC Watershed Association. Carl Meyer, the County entomologist, did the sampling, the invertebrate identification, and analysis of the data for the TC/TCWA. Additionally, 17 stream watchers checked the stream conditions of 21 sites each month.

The results for the five sites sampled by the County will not be available until next spring. The following list shows the biological assessment rating of the ten sites sampled by the TC/TCWA from highest to lowest quality.

Optimal:

Frame Cabin Run

Two Mile Run

Toby upstream Pollys Run

Toby upstream Pocono Lake

Slightly Impaired:

Toby upstream Hummler Run

Toby upstream Dream Mile Club

Hawkey Run West of I-380

Hawkey Run East of I-380

Upper Tunk upstream Pocono Lake

Moderately Impaired:

Pocono Summit Creek West I-380

Severely Impaired: NONE

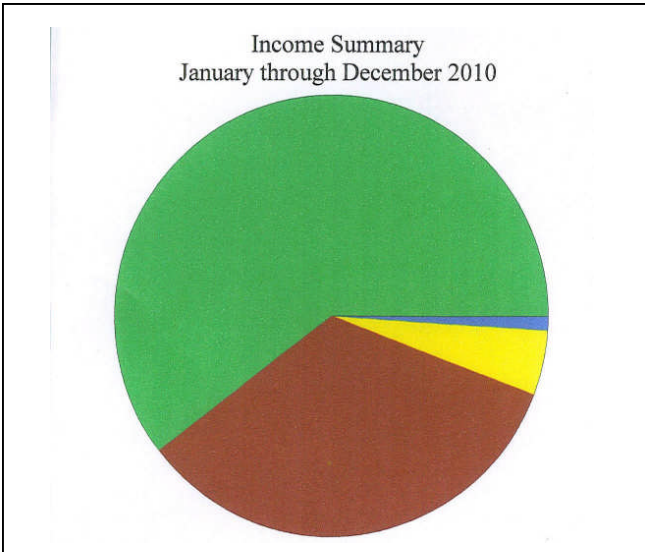
The overall assessment of our watershed is good. Historically, most of the sites in our watershed have a good biotic assessment with few sites showing measurable quality impairment. 2010 was a year of lower than average stream flows due to periods of little to no rainfall. Drought watches and warnings were in effect through most of the summer. The resulting low flows reduced the quantity of water flowing in the stream channels, decreasing the availability of space for in-stream habitats. Thus, the resulting scores demonstrate the high quality of our streams, even in times of low flow.

Frame Cabin Run, our "Exceptional Value" reference stream received the highest score of 28 (two points away from 30, the highest obtainable score). The Tobyhanna Creek upstream of the Dream Mile Club received a slightly impaired score of 22, as seen in 2007 and 2008. In 2009 the score had increased to 26 likely due to the presence of high flows that year. This site appears to suffer from fluctuations in flow. The 2010 sample contained a very dominant net-spinning caddisfly taxa, which indicates an abundance of fine particulate matter and an open tree canopy. Low stream flows cannot carry leaves downstream as readily as high stream flows. The lack of shredders, those invertebrates which consume the leaves that fall from heavily canopied streams, lowered the score.

Pocono Summit Creek, which historically scores low, received a moderately impaired score of 16. It should be noted that the combination of drought conditions and the drawdown (for dam repair) of Lake Stillwater, downstream, left very little water in the stream both at the time of sampling and during the months prior to sampling.

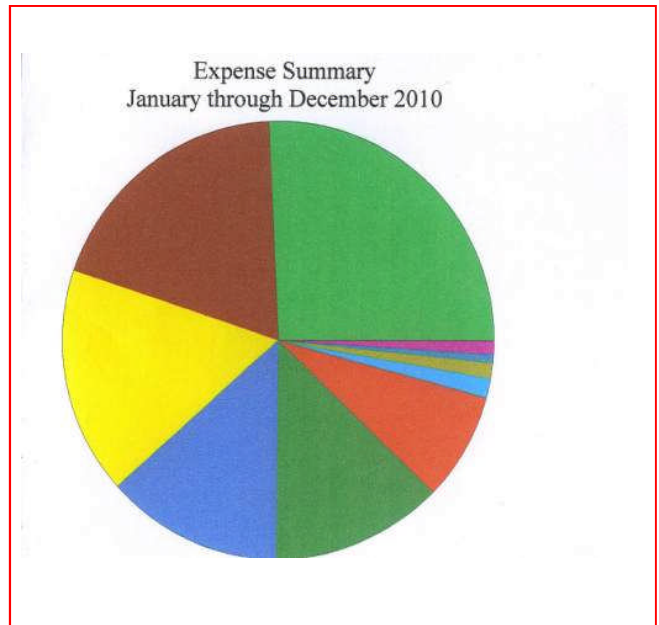
Both sites on Hawkey Run received a score of 24. For the upstream site (east of I-380) this is a typical score but is an increase in score for the downstream site (west of I-380). The downstream site had received a score in the teens in previous years likely caused by the malfunctioning sewage pump station next to Hawkey Run in the Stillwater Lake Civic Association (SLCA) development. Recent attempts had been made by DEP to request that SLCA renew their permit and come up with a solution to the problem. This has not yet occurred to our knowledge but may have resulted in adjustments or repairs to the pump station increasing the score at the downstream site to match the upstream score.

For additional information on The TC/TCWA's stream watch program and a link to the macroinvertebrate sampling data, visit our website at www.tctcwa.org.



4000 · Member Dues	\$3,690.00
4030 · Contributions Income	2,060.00
4100 · Grants	300.00
4999 · Interest Income	43.61
Total	\$6,093.61

6180 · Insurance	\$1,005.00
6670 · Program Expense	750.00
6130 · Sec'y/Bkcp Expense	660.00
6260 · Printing and Reproduction	516.80
6250 · Postage and Delivery	506.39
6810 · Web Site	310.15
6340 · Telephone	56.01
6290 · Rent	44.00
6140 · Contributions	25.00
6240 · Miscellaneous	23.65
Total	\$3,897.00



ANNUAL MEETING AUGUST 16, 2010



President Larry Gould presented three retiring Stream Monitors, Ted Suttmeier and Robert and Dolores Kohnken, with Certificates of Appreciation for their years of service as volunteer stream monitors.



Tracy Carluccio, Deputy Director of the Delaware Riverkeeper, was the guest speaker. Ms. Carluccio spoke on the subject of the Marcellus Shale drillings and the impact on the environment and water quality. Those in attendance were so engrossed in the question and answer session that no one seemed to notice the time. The meeting adjourned at 9:20 PM.



WATERSHED

WHAT ARE THEY? WHERE ARE THEY?

WHAT DO THEY DO?

By Ken Clark

Published in the Pocono Business Journal - August 2007

What is a Watershed?

- (a) Anything that sheds water.
- (b) Any moment or event separating distinct periods of time to engender a profound cultural or societal change.
- (c) A drainage basin or river catchment in a region of land in which flowing water is drawn into a specified body of water.
- (d) All of the above.

Technically, "All of the above" would be correct, but, for the moment, the focus is on (c), because what happens to water - where it comes from, where it goes and what happens to it when it get there -- is of increasing importance everywhere. The Pocono region is no exception.

The classic illustration of a watershed is the one that begins some 14,000 feet up in the Rocky Mountains along a line called the Continental Divide. There, it may be said, if two drops of rain fall a scant two inches apart, but one falls on the western side of the divide and the other on the eastern side, eventually they may wind up 3,000 miles apart - the eastern wanderer in the Atlantic Ocean, Chesapeake Bay or the Gulf of Mexico and the westward counterpart in the Pacific Ocean or the Gulf of California.

The example is oversimplified, of course. Rain drops in question may evaporate, be consumed or sink into subterranean aquifers before they ever reach such final destinations, but the principle remains valid.

Rain water or snow melt trickle down mountainsides in dendritic drainage patters, so named because they resemble an array of tree roots. The trickles merge to create brooks, which flow into streams, which run into rivers, which then feed into lakes and man-made reservoirs or the aforementioned oceans. But the Continental Divide isn't the only North American watershed. Hundreds of thousands of drainage basins and river catchments lie between those flowing waters and their ultimate destinations, both in the United States and Canada.

Watersheds capture and store the precious water on which, and by which, we live every day.

According to the Environmental Protection Agency, there are 58 major watersheds crossing 67 counties in the Commonwealth of Pennsylvania alone. Seven of those lie across the four counties of the Poconos where they provide an exploding human

population with water to drink and in which to bathe, do the dishes, fight fires and make the golf courses green. They feed a booming recreational industry, keep the forests lush and occasionally, if not properly respected and managed, allow floods to roar across the region.

In terms of the national economy, the EPA reports that "more than \$450 billion in food, fiber, manufactured goods and tourism depend on clean water and healthy watersheds." Forget those other definitions. Water is what it's all about.

As Benjamin H. Grumbles, assistant administrator for Water at the Environmental Protection Agency, puts it on the agency's Web site: "The future of the planet and the protection of the nation's water resources depend on a universal understanding and the appreciation of watersheds."

We haven't seen eye-to-eye always with that bit of advice. In years past, farmers have allowed livestock waste water, loaded with nutrients for fish-killing algae, to run directly into lakes, rivers, estuaries and watersheds. Old mines have leached mercury, corrosive acids and other chemicals into ground water, and industrial wastes have created such infamously toxic waste sites as the Love Canal. But Grumbles says things are looking up, nationwide.

He reports that 85 per cent of farmers in West Virginia now have erected animal waste lagoons to protect their watershed. Massive mine cleanups are underway in Utah, and nationwide, an estimated 4,000 community based local association, including seven in the Poconos, now have rallied ordinary citizens to protect and maintain their watersheds.

"The human dimension to environmental protection cannot be underestimated," says Grumbles. "Clean water matters to everyone. It is the white carpet of sand hill cranes on the Platte River in Nebraska. It's the striking pink roseate spoonbills in the Gulf of Mexico. It's the fascinating upstream struggle of salmon the Pacific Northwest. It's the knobby trunks of cypress trees in the Everglades. It's the shiny green leaves and creamy soft petals of the flowering magnolia tree in Louisiana."

In the Poconos, it's Lake Wallenpaupack, Bushkill Falls, the mighty Delaware and the dozens of cold, clear trout streams that make the region a fly-fishing mecca.

'Water is life,' says Grumbles.

Lose it, anywhere, and the second definition of "watershed" may follow - the moment in time that engenders profound cultural or societal change, in this case, for the worse.

That's a watershed event nobody, anywhere, ever wants to see.

OUR MISSION NOT IMPOSSIBLE

The Tobyhanna Creek / Tunkhannock Creek Watershed Association (TC/TCWA) is a non-profit corporation dedicated to preserving the waters, wetlands and wildlife within our 125 square mile watershed in northeast Pennsylvania. We inform the public about water quality issues and monitor our lakes and streams for indications of degradation or pollution

The Tobyhanna Creek/Tunkhannock Creek Watershed Association was formed in 1991 to promote awareness of the exceptional value of our lakes, streams and wetlands. The map pages on our website, www.tctcwa.org, present a clear picture of the intricately linked mosaic of swamps, creeks and lakes that sustain us along with a rich abundance of plant and animal life, both common and rare. The watershed also contains the Long Pond Barrens, an ecosystem unlike any other in the world, where wetland plants thrive in conditions that should not be able to support them. Natural scientists are studying what remains of this barrens area (much of it has been lost to development) in an attempt to explain the contradiction.

Sadly, if predictably, human impacts pose a potential threat to the quality of our water and our remarkable landscape. The threat is now imminent. Most of our watershed lies within Monroe County which has become the second fastest growing county in Pennsylvania. Parts of the county have fallen victim to suburban sprawl and some of its streams (outside of our own watershed) have been degraded. Past efforts to gain control of planning and land use in the county have been less than successful because of outmoded state law, uncontrolled development and a general lack of public will and awareness.

Against this backdrop, TC/TCWA was formed to bring together people who want to see our natural heritage maintained for the benefit and enjoyment of future generations. We are constantly looking for innovative ways to educate the general public to assist us in achieving this goal.

**YOUR MISSION
SHOULD YOU CHOSE TO ACCEPT IT**

IS TO

GET INVOLVED!

SPREAD THE WORD!

MAKE A DIFFERENCE!

ATTEND OUR ANNUAL MEETING!

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Please consider renewing your
subscription.
We need your help and support.

**MAY IS
WATERSHED AWARENESS MONTH**

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TC\TCWA NEWS

MARK YOUR CALENDARS FOR UPCOMING EVENTS

TC/TCWA Annual Clean Up - Route 423 - Saturday, May 14, 2011 at 1:00 PM (Rain Date - Sunday, May 15, 2011 - Volunteers needed. Bring Gloves. Bags and vests will be provided. Meet at the first parking lot on the left past Timber Trails. For additional information and/or to volunteer, please contact Paula at (570) 646-5206 or e-mail tctcwa@hotmail.com.



TC/TCWA SPECIAL 20TH ANNIVERSARY MEMBERSHIP MEETING

Monday, August 15, 2011
7:00 PM

Location: The Nature Conservancy
Long Pond Road, Long Pond, PA.

We are looking forward to seeing you there!
Guest speaker to be announced.

A Call for Volunteers -- Join Us!

If you are interested in participating in the successes of the TC/TC WA through the donation of your time, please complete this form. We will try to match your skills, interests, and availability with a suitable project or task.

Name: _____

Address: _____

Phone: _____

Email: _____

Skills: (check all that apply)

- Computer
- Administrative
- Writing
- People skills
- Manual labor
- Accounting
- Biological, chemical, or physical sciences
- Other _____

Our current and future needs: (check any of interest)

- Semiannual litter cleanup (Spring and Fall)
- Stream monitor (monthly)
- PA Watersheds Database data entry (monthly)
- Invasive plant inventory (future project)
- Web master (ongoing)
- Income tax returns (annual)
- Newsletter article writer (ongoing or as needed)
- Grant writer (as needed)
- Volunteer coordinator (ongoing)
- Board member (monthly meetings and ongoing)
- Educator for TC/TC WA Power Point and wetland trail programs (as needed)

Availability: (check all that apply)

- Year-round (long-term)
- Over the summer (seasonally)
- On an as-needed basis (short-term)

Please mail completed form to:

TC/TC WA

PO Box 796

Pocono Lake, PA 18347

Thanks for your interest!

REQUESTED CONTRIBUTION SCHEDULE

Single Membership _____ \$20

Family Membership _____ \$30

Corporate Membership _____ \$150

Adopt-A-Stream Membership _____ \$300

(This membership covers the cost for all tests
at a given stream site for one year)

NAME _____

ADDRESS _____

City State Zip Code

IS THIS A CHANGE OF ADDRESS YES () NO ()

Would you like to receive the e-mail agenda and minutes of our board meetings? If so, please include your e-mail address if we do not have it. _____

COMMENTS

Please make checks payable to TC/TC WA and mail them to:

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