



Spring 2010

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**Watershed Alliance of Adams County**  
P.O. Box 4329  
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# Watershed Alliance of Adams County

*AdamsWatersheds.org*

## Message from the President

by **Mark D. Berg**

In 2009, the Watershed Alliance of Adams County (WAAC) celebrated its 10<sup>th</sup> Anniversary. As in previous years, WAAC carried out several projects to improve and protect water resources in Adams County. Below are a few highlights.

WAAC Board member Bill Hanne is Chairman of Adams County’s Water Resources Advisory Committee (WRAC), which WAAC helped the county commissioners create to carry out a county-wide Water Resources Monitoring and Protection Program. Several WAAC members also serve on the Committee. There are four WRAC sub-committees: monitoring, protection, collaboration, and forecasting. The cooperation between municipal authorities, municipal governments, and local water companies – a result of the joint realization that water is indeed a finite resource, and that Adams County has no significant surface water resources – has been critical to the success of WRAC.

In April, as part of the Great American Cleanup, WAAC members and volunteers from the community cleaned up a section of Stevens Run (a/k/a/ “The Tiber”), which flows east to west through Gettysburg. A stream cleanup involves walking through a stream and along its banks, collecting and disposing of trash and debris. Cleaning improves the health of the stream’s ecology and increases its physical beauty; it is an effective way to improve the stream’s habitat, water quality, and aesthetics.

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## Planning to Fail?

by **Charles Skopic**

Of course not; people, businesses, and organizations don’t plan to fail, but they sometimes fail to plan! The results of failure – financial problems, even bankruptcy – can be costly. The same is true for governments, but the public bears the cost and inconvenience.

Planning for adequate water supplies is something our local governments are not doing as well as they could or should. This is not due to lack of direction. The Pennsylvania Municipalities Planning Code (MPC), the bible for local governments, states, “The Comprehensive Plan shall include a plan for the reliable supply of water...including provisions adequate to protect water supply sources.” Yet few municipal comprehensive plans meet that requirement.

Why are our local governments not doing water resource planning? Three reasons come to mind. Water resource planning may have seemed unnecessary in the past. The 1990 census recorded a county population of about 78,000; the 2010 census probably will show close to 110,000. If that rate of growth continues, the population in 2030 will be over 150,000. What was okay for 78,000 people will not suffice for 150,000, especially with increased water usage for tourism, agriculture, and commerce.

Secondly, water resource planning is difficult because water does not respect political boundaries. Municipalities may be unaware of, and certainly can’t control, actions by adjacent municipalities that could affect their

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**Message from Page 1**

WAAC will carry out a stream cleanup during the Great American Cleanup in 2010. If you know of a stream near you that could use a spring cleaning, please contact WAAC at [adamswatersheds.org](http://adamswatersheds.org). Volunteer for this rewarding springtime activity and meet new people who are also concerned about the care of our environment.

In July, WAAC co-sponsored a Source Water Protection Workshop to raise awareness about the threats to Adams County’s public drinking water sources and to encourage the community to support and implement source water protection practices. How we govern and shape development patterns directly affects the quality of our water.

Water suppliers can treat water through technological methods and procedures, but protecting water sources is essential to protecting public health and keeping treatment costs down.

Thanks to Pa. DEP and Adams and York Counties’ Commissioners, WAAC arranged for permanent funding of the stream gage on the Conewago Creek in East Berlin to evaluate groundwater resources in that watershed. Data from the gage will enable WRAC to monitor water resources in northern Adams County. In 2010, WAAC will install additional, less-costly stream gages on other streams. WAAC members and volunteers will take and report periodic measurements of stream flow.

WAAC continues to be a supporting member of the Adams County Partnership for Land Use Education, helping county residents to understand growth concerns in Adams County.

Finally, WAAC’s web page contains a variety of resources, including information on planning processes in Pennsylvania, specific information for Adams County, and information on current and past projects. Additionally, our monthly educational column in the *Gettysburg Times* discusses topics ranging from the harmful effects of not

recycling bottled water containers, to understanding our limited groundwater resources.

WAAC is a relatively small volunteer organization, and by itself cannot do all that is necessary to maintain the quantity and quality of our water. But we do help foster an understanding, by residents and municipal officials, of what needs to be done, and we help get it done. While much has been accomplished, much more remains to be done. I hope you will join us in our work.

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water resources. Furthermore, water supply data is less available for small areas; protecting water sources is best done for large areas such as watersheds. These factors suggest a multi-municipal approach is needed, but often hard to achieve.

Finally, there are no penalties in the MPC if a municipality’s comprehensive plan fails to include the required water supply and protection provisions. Of course, nature imposes its own penalties if water resources aren’t protected, but they’re not imposed until there is a drought or some toxic spill infiltrates into groundwater and contaminates wells.

Is there hope for multi-municipal water resources planning? Fortunately there are some avenues for progress. Pennsylvania Department of Environmental Protection maps delineate the areas that contribute groundwater to municipal wells. Municipalities can use these maps to identify areas that should be protected from inappropriate uses in their land use plans.

*Charles Skopic is a member of the Board and past President of the Watershed Alliance, and Chairman of the Adams County Water Resources Advisory Commission’s Protection Subcommittee.*

# Warmer Weather, Warmer Water?

by Charles Skopic

Spring is finally here, bringing to mind strolling on the beach in summer or lounging by a pool. But there’s a different, more ominous scene to contemplate: a world with coastal areas underwater, fierce storms, extended droughts, wildfires, and the spread of diseases.

This gloomy future can be avoided if nations act to stop global climate change. Such cooperation is possible, but the limited success of December’s climate conference in Copenhagen and the fact that some in Congress doubt or deny global warming does not provide much basis for optimism. So if more global warming is likely, how would it affect Adams County?

Before trying to answer that question, consider some basic facts. There are two different climate concepts. Climate **variation** refers to changes which naturally occur over years, even centuries, but then naturally return to “normal.” Such variations can result from changes in ocean temperatures (e.g. El Nino), solar radiation reaching earth, and variations in earth’s orbit. Climate **change** extends over long periods, and does not easily or automatically reverse. Both climate **variation** and **change** can occur concurrently. (Think about seasonal changes—winter to summer—with warm days in winter and cool days in summer.) This leads to confusion over whether current global warming is a natural variation or climate change.

Science points clearly to long-term global climate change. An international panel concluded in 2007 that global warming is “unequivocal” and that human activity is “very likely” the cause. It is due to the build-up of carbon dioxide (CO2) and other greenhouse gases in our atmosphere caused by the

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burning of fossil fuels (mainly coal and oil) since the industrial age began in the 1780s. Before that, atmospheric CO2 levels fluctuated for millions of years but returned to about 290 parts per million (PPM); now it's 380 PPM, the highest in the past 10 million years. If the current rate of CO2 buildup continues, it could reach 600 PPM by mid-century. This would significantly raise global temperatures, melting the ice cover in northern regions, raising sea levels, flooding coastal areas, causing extreme weather events: heat waves, cold snaps, droughts, and storms.

What does this mean for us? Higher temperatures cause more evaporation of surface water and allow air to hold more water. Temperate areas such as Pennsylvania will likely experience heavier rainfall interspersed with dry spells and droughts. This will increase the need to retain and protect the water we receive during heavy rains and be prepared to handle periodic severe flooding. There probably will be fewer winter blizzards but more ice storms. Summers will be hotter, so air conditioning will use more power that hopefully will come from renewable energy sources.

Agriculture will be affected, with some crops harder to grow, and crops now grown farther south being grown here. Insects now controlled by cold winters will become more numerous, and new plants, insects, and crop diseases may appear. Outdoor activities also will be affected as streams become warmer and trout disappear; hunters will not need heavy clothing but will be concerned about ticks. More outdoor sports could be played nearly year-round, while typical winter sports would be limited.

Other more drastic changes may occur if global warming continues. But why would we allow that to happen? Climate change is not automatically self-correcting; our help is needed.

**AdamsWatersheds.org**

# New WAAC Directors

**Chuck Reid**, Treasurer

Watershed Address: Willoughby Run, Marsh Creek

Chuck is the executive director of Strawberry Hill Nature Center. He has a degree in Experiential and Outdoor Education from Penn State, and a Masters of Public Administration from Virginia Tech. He also worked for the Pennsylvania Department of Conservation & Natural Resources and the Adams County Planning Office.

**Adam McClain**

Watershed Address: Tom's Creek

Adam is the Watershed Specialist for the Adams County Conservation District. He has a degree in Wildlife and Fisheries Sciences from Penn State. Adam is a member of the Adams County Water Resources Advisory Committee. He also worked for the National Park Service and the Cumberland County Conservation District.

**Stephanie J Tilden**, Secretary

Watershed Address: Lake Meade, Conewago Creek

Stephanie graduated from Hollins College with a B.A. in Sociology. She represented her subdivision at planning meetings with the Virginia Department of Transportation and the Fairfax County Board of Supervisors on various issues of concern to the community. She is also a member of the Friends of the North Fork of the Shenandoah River in Woodstock, Virginia, an organization similar to WAAC.

**Bill Hanne**

Watershed Address: Upper Conewago Creek

Bill is retired from the U.S. Army where he served in a number of overseas and stateside posts. He received his MS in Physical Geography from the University of Illinois and his doctorate in Policy, Planning, and Administration from the University of Maryland. He is currently Mayor of Arendtsville and serves on: the advisory board of the Adams County Office for Aging; board secretary for South Central Community Actions Programs; stream evaluator for Environmental Activities by Seniors Involved (EASI stream testing); and the Board of Directors for the Gettysburg-Adams Chamber (chairman of the Transportation Committee).

## Annual Dinner and Silent Auction

On **Wednesday, May 5**, the Watershed Alliance will hold its annual dinner at 6:00pm at the Dobbin House Tavern, 89 Steinwehr Avenue, Gettysburg..

Kimberly Williams, landscape protection coordinator and co-leader of the South Mountain Partnership for the Appalachian Trail Conservancy, will be the keynote speaker. She has worked as both an environmental and community planner in private design firms and in the public realm of county and state-wide planning. A native of Utah, Kim moved to Pennsylvania to be a part of the organization that cooperatively manages the Appalachian National Scenic Trail which spans from Georgia to Maine and is a unit of the National Park System. In 2007, Kim hiked 1,900 miles of the Appalachian Trail from North Carolina to Maine.

There will also be a Silent Auction to support WAAC's projects. Items will include original artwork, gift certificates, local wines, home-made desserts, and more!

# Even Streams Need a Spring Cleaning

by Chad Clabaugh

It's that time again when the Watershed Alliance of Adams County is planning its Annual Stream Cleanup. This year we wanted to put a new twist on the cleanup and we need your help!

You may take part by:

- ✓ Participating in the actual cleanup of the stream;
- ✓ Serving lunch; and/or
- ✓ Contributing toward the cost of the project.

**Date:** Saturday, June 19  
**Time:** 9am–12pm  
 Lunch will be provided at 12pm

**Rain Date:** Sunday, June 20  
**Time:** 1-4pm , lunch at 4pm

We will be doing our cleanup along Approved Trout Waters across the county. Approved Trout Waters are areas that the Fish and Boat Commission stocks with trout. These are some of Adams County's healthiest streams; yet, these streams become unattractive when visitors leave trash behind, when debris from adjoining properties is swept into the stream by wind or high water, or when the area is thoughtlessly used as a dumping ground.

## Potential Cleanup Sites

- Toms/Middle Creeks
- Little Marsh/Marsh Creeks
- Conewago/Opossum Creeks
- Bermudian/Latimore Creeks

Our goal is to raise awareness of exactly how much we leave behind or how well we pick up after ourselves. This is not just a cleanup effort, but an educational effort.

Please reply by April 30<sup>th</sup> by emailing Stephanie Tilden at [stephanietilden@verizon.net](mailto:stephanietilden@verizon.net)

Please indicate the following:

- the site of interest to you,
- the way in which you can help, and
- your phone number.

The stream cleanup committee will get back to you by May 15<sup>th</sup> with the final details.

Since its founding in 1999, WAAC has undertaken other stream cleanup and stream bank stabilization projects, including: a cleanup of the Conewago Creek in the Table Rock area; the Conewago Creek Streambank Restoration of a section in the Narrows; and assessments of Rock Creek and Middle Creek, documenting existing conditions by collecting information on habitat through visual surveys, water quality through chemical testing, and aquatic and macroinvertebrate (insect) identification.

*Chad Clabaugh, a member of the Board of WAAC, is a Civil Engineer and design engineer/project manager for municipally-related projects for C.S. Davidson, Inc.*



*In 2009, Stevens Creek yielded an old tire, a mattress and quilt, a lawn chair, an exhaust pipe, countless beer bottles, soda and paint cans, candy wrappers, and Styrofoam cups of all sizes. Chad Clabaugh (above) was the coordinator.*

# Middle Creek Assessment

by Wayne Belt

The year-long study of Middle Creek that began in 2007 has concluded. The entire creek was part of an extensive abiotic chemical and biotic analysis during that time.

Many volunteers made this study possible, and without them, the study would not have been possible. So, many thanks to the long list of folks, both in the community and WAAC members who suffered frigid digits in the winter months and enjoyed streamside wildlife during the spring and summer.

The succinct conclusion is that Middle Creek is in very good health. There are, of course, some minor issues, but game fish should enjoy their environment in Middle Creek, as much as the humans who linger by it.

With the conclusion of one study another one begins...read on.

# Staff Gage Project

WAAC's technical committee is leading the way to study the volume of surface water flow in many, if not all, of the streams in Adams County. To achieve that goal we are sponsoring a staff gage workshop this spring.

We hope many volunteers will measure the volume of flow in selected stream sites during the LOW FLOW months. This study will not take quite as long to complete as the Middle Creek study. Some initial measurements will be taken to create a base line graph of volume of flow, then simple height measurements are all that will be needed to measure volume at any time.

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### Projects from Page 4

More details will be forthcoming regarding this project, so stay tuned to WAAC's projects at our website and respond to the email call for volunteers to help us measure river flow over the summer of 2010.

*Wayne Belt is a member of the Board and Chair of the Technical Committee of the Watershed Alliance.*



***WAAC board members Wayne Belt and Robert Lasco explained the results of WAAC's Middle Creek Assessment at Strawberry Hill's Earth Day Celebration.***

## Adams County Water Facts

Adams County has over 1,300 miles of streams. But Adams is the only county in Pennsylvania into which virtually no water flows; every stream in Adams County originates within the county, and flows to the Chesapeake Bay. Our water starts here!

Of course, water is important to you only if you drink water ... or cook with water ... or wash with it ... or need it for sanitation. That is to say, all of us. We take the availability of clean water for granted ... most of the time. And here in Adams County, it usually is. All the water we have is what falls from the sky and recharges our groundwater. Let's make sure we use it wisely.

**AdamsWatersheds.org**

## About the Watershed Alliance

The mission of the Watershed Alliance is to monitor, improve, and protect water resources within Adams County.

WAAC is a member-based, nonprofit organization whose goals are to

- Help residents better understand the complex watershed issues affecting Adams County;
- Encourage sound water management and land use practices that will promote a sustainable watershed resource;
- Support a county-wide water monitoring program and data base to use for evaluating water resources;
- Identify and carry out watershed improvement projects; and
- Maintain the viability and sustainability of the Watershed Alliance of Adams County.



***In 2008, WAAC received the Peacemaker of the Year Award from the Interfaith Center for Peace and Justice.***

## How to Join the Watershed Alliance

**Not yet a WAAC member?  
Join us now!**

### Membership Application

WAAC is a 501(c)3 organization under the rules of the IRS. Membership dues are tax-deductible to the extent of the law.

### Membership Benefits

- Members' Newsletter
- Member events and field trips
- Satisfaction of protecting water resources
- Joy of community service

### Annual Dues

- Individual \_\_\_\_\_ \$20
- Family \_\_\_\_\_ \$30
- Protector \_\_\_\_\_ \$50
- Guardian \_\_\_\_\_ \$100
- Conservator \_\_\_\_\_ \$250
- Steward \_\_\_\_\_ \$500
- Life Member \_\_\_\_\_ \$1,000

Name \_\_\_\_\_

Address \_\_\_\_\_

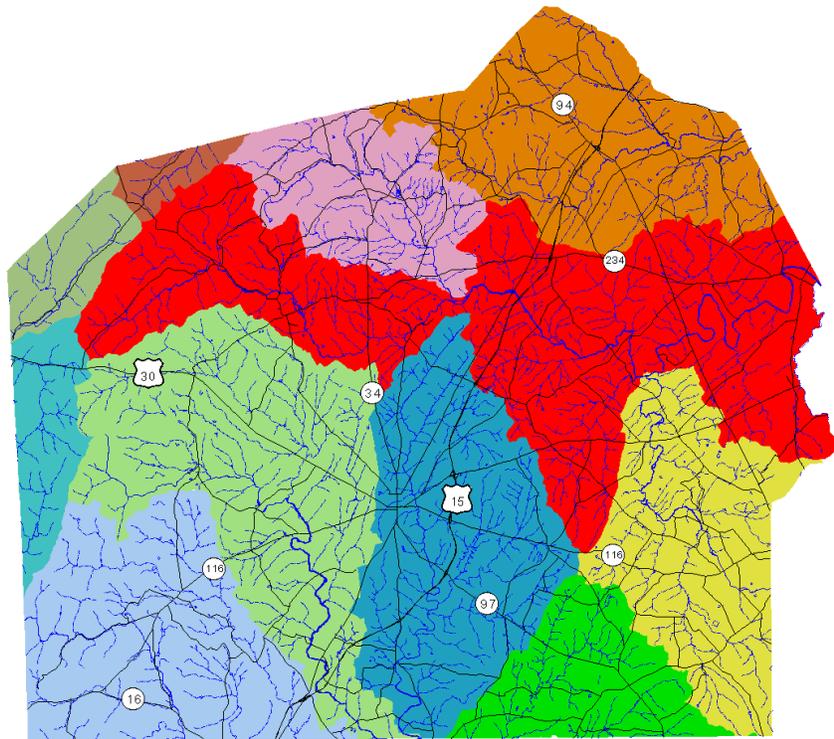
Phone Number \_\_\_\_\_

Email \_\_\_\_\_

Thank you!

Please mail your check to:

**Watershed Alliance  
of Adams County  
P.O. Box 4329  
Gettysburg, PA 17325**



**Susquehanna Watershed**

- Conewago Creek Watershed
- South Branch Watershed
- Bermudian Creek Watershed
- Opposum Creek Watershed
- Mountain Creek Watershed

**Potomac Watershed**

- Marsh Creek Watershed
- Rock Creek Watershed
- Toms Creek Watershed
- Piny and Alloway Creek Watersheds
- Conococheague Creek Watershed
- Antietam Creek Watershed

**The Watersheds of Adams**

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