

2013 Annual Report



A County Conservation Districts' role within their community is to protect the natural resources that are of critical concern to their County residents. In Pike County our exceptional ground and surface waters are the backbone of the resources that sustain our community. The Pike County Conservation District is firmly committed to maintaining high quality water resources. This Annual Report highlights a number of these activities.

There are numerous programs that the District administers to protect our natural resources including the Erosion and Sediment Control and Waterways Management Permitting and the Dirt & Gravel Road Maintenance Program. The District also works closely with our many partners on the surface water quality and groundwater monitoring programs and diverse conservation education programs.

In 2013 we welcomed a new Executive Director, Sally Corrigan, who led the District Staff team through a smooth transitional year. With the support of our County Commissioners, the District Board and Executive Director, we have also completed key priorities that included developing a strategy for retaining trained, experienced staff and a Board Succession Plan. These steps are essential to our vision:

The Pike County Conservation District will be a recognized and respected leader in fostering a conservation ethic among government officials, non-governmental groups, the development community, community associations, land owners and the general public that results in conserving the integrity of the natural systems that enrich the Pike County environment.

The District would like to extend its thanks to the Pike County Commissioners, municipalities, and our state and local partners for their support and assistance in carrying out our mission. My fellow volunteer Board Members are also to be commended for their dedication and leadership in the face of significant challenges to maintaining Pike County's exceptional natural resources.

A handwritten signature in black ink, appearing to read "Scott Savini".

PCCD Board Chairman Scott Savini

What is the Pike County Conservation District?

The Pike County Conservation District was established in 1956 by the County Commissioners. Districts are designated by state law as the primary local government unit responsible for conserving natural resources and implementing programs to quantify, prevent and control nonpoint sources of pollution. The District serves as a community clearinghouse for natural resource conservation information and educational materials as well as state and federal regulatory and permit information.

The District provides these services through various delegation agreements, contracts and grants, primarily with state agencies. The remainder of the District budget is funded by fees and county support.

Pike County Conservation District provides an essential local perspective and focus on balancing environmental conservation with growth and development and has a long history of responsible, efficient delivery of state environmental programs at the county level. An engaged volunteer board of directors represents a cross section of local interests governing a diverse District staff who are well-trained and experienced. All of these individuals share a vested interest in their communities. Residents, businesses and economies of the County, all of which depend on a healthy environment, benefit greatly from the Pike County Conservation District's programs and services.

OUR MISSION

Pike County Conservation District is committed to natural resource conservation through leadership, education, technical assistance, planning and enforcement to ensure the long term protection and sustainable use of Pike County's natural resources and implementation of environmentally sound development and land use practices.

District Board Updates

Conservation District Directors have the responsibility for the conservation of natural resources within County boundaries. This requires the identification of local natural resource needs and issues, development of management strategies, development and setting of local policy, and coordination of local, state and federal resources.

In January 2013, District Directors Scott Savini and Robert Engvaldsen were reappointed to the Board for another four-year term. In February, the Board revised the District Fee Schedule for Services to incorporate changes in Chapter 105 regulations which included

fees for regulated activities to help offset operating costs of the program. Board members also participated in the District's February workshop for municipal officials providing updates on the District programs and exploring ways the District can work more closely with municipal officials.



The Board and Staff, along with Pike County Commissioners, did their part to support the Great Pennsylvania Cleanup in early April by cleaning up roadsides along a two-mile segment of State Route 402 near the District office in Blooming Grove.

A highlight of 2013 was the District's Annual Dinner in November. The District Board, Pike County Commissioners, and state legislators recognized District Director Roy Borgfeld for his 16 years of volunteer service to the Pike County Conservation District. Roy joined the District in 1997 as an Associate Director and spearheaded efforts to develop and track a detailed Long-Range Plan for District operations. Roy also supported District programs focused on educating county residents and municipal officials on issues such as open space conservation and conservation design for commercial development. Roy served as District Chairman, Vice-Chairman, and Treasurer and played a key role on a number of committees during his tenure with the District. Lehman Township Supervisor John P. Sivick was nominated and approved to fill Roy's Public Director position in January 2014.

In December 2013 Farmer Director Ray Banach submitted his resignation to the Board due to work commitments but requested to stay on as an Associate Director. The Wayne/Pike Farm Bureau nominated Mike Mancino, Lackawaxen Township Supervisor, to fill this position. This was confirmed in February 2014.



Roy Borgfeld is pictured above at the District's Annual Dinner with Board Chairman Scott Savini

2013 Board of Directors

Scott Savini, Chairman
Bob Engvaldsen, Vice Chairman
Linda Cioppa, Treasurer
Richard A. Caridi, Commissioner
Ray Banach, Roy Borgfeld,
Peter Helms

Associate Directors

Ken Ersbak,
Carole Linkiewicz, John Milliken

2013 District Staff

Sally Corrigan, Executive Director
Michele Ulmer, Administrative Manager
Kelly Rodemich, Program Assistant/
Gypsy Moth Coordinator
Tina Spizuoco, Administrative Assistant
Ellen Enslin, Senior Resource
Conservationist
Russell Seese, Resource Conservationist
Marianna Quartararo, Resource
Conservationist
Lori Colgan, Watershed Specialist

Monthly Meetings

Held the third Monday
of each month
(unless otherwise advertised)
9:00 am at the District Office in
Blooming Grove.
The public is invited to attend.

District Office

556 Route 402
Hawley, PA 18428
PHONE: 570-226-8220
FAX: 570-226-8222
email: pikecd@pikepa.org
www.pikeconservation.org

Pike County Commissioners

Richard A. Caridi
Matthew Osterberg
Karl A. Wagner, Jr.

2013 Staff Highlights

Executive Director Sally Corrigan led the Pike County Conservation District staff team through a busy year. Joining the District in late 2012, Corrigan worked closely with the team to gain a better understanding of all program areas and attended trainings on Chapter 102 and Chapter 105 technical programs. Throughout 2013, Corrigan worked closely with the District's Technical staff on implementation of the environmental regulatory and natural resource management programs. Senior Resource Conservationist Ellen Enslin served on a number of committees in 2013 including the Pike County Agricultural Land Preservation Program Board and PPL's Lake Wallenpaupack Shoreline Committee. Ellen also represented the District on a statewide Chapter 102/NPDES/Chapter 105 advisory committee.

Administrative Manager Michele Ulmer worked closely with the District's administrative staff team which includes Administrative Assistant Tina Spizuoco and Technical Program Assistant/Gypsy Moth Coordinator Kelly Rodemich. The administrative team handled all aspects of the District's day-to-day operations, coordinated education and outreach activities, and provided support to all program areas including both Chapter 102 and Chapter 105 delegated programs. Michele continued to work with the Pike-Wayne Conservation Partnership and represented the District on the PACD Education and Outreach Committee as well as being a District Voting Delegate to the PACD Executive Council. Michele was appointed to the PACD Leadership Development Committee in November 2013. Both Ellen Enslin and Michele Ulmer were recognized by the District Board in 2013 for their 10 years of service to the District.

Executive Director Corrigan worked closely with Watershed Specialist Lori Colgan in 2013 on both the surface and groundwater quality monitoring programs. Lori worked on a number of educational outreach programs including working with a local Girl Scout Troop and the Pike County Area Agency on Aging on the installation and upkeep of a rain garden at the Lackawaxen Senior Center. Lori also assisted in the organization of the Pocono Source Water Protection Collaborative.



Vice Chairman Bob Engvaldsen with Senior Resource Conservationist Ellen Enslin



Chairman Scott Savini with Administrative Manager Michele Ulmer

Pike/Wayne Conservation Partnership

The Pike/Wayne Conservation Partnership is an alliance of over twenty government, non-government, non-profit and grass roots organizations that work toward similar goals on natural resource conservation, sustainable communities and citizen involvement in community planning in Pike and Wayne Counties. The group has been meeting since 2004 to coordinate workshops, stretch funding dollars and collaborate on projects that are of similar concern within the region.

In 2013, the Pike-Wayne Conservation Partnership sponsored a series of recreational programs that provided opportunities for participants to see some incredible landscapes and learn why our natural surroundings are so important to our community. The recreation series ran throughout the spring and summer of 2013. As a special bonus, each participant attending one of these recreation programs could enter a drawing to win a Spitfire 8' Sit-on-Top Kayak donated by *Northeast Wilderness Experience* or a gift certificate from *Alice's Wonderland*. The drawings took place in August with winners from Pike County taking the prizes!

The Pike/Wayne Conservation Partnership continued their outreach to legislators in 2013 with their Annual Legislative Breakfast which was held at the Pocono Mountain Visitors Bureau, Wallenpaupack Visitors Center in Hawley, PA in August. This annual event provides an opportunity for local, state and federal legislators and the partners to discuss issues of concern within Pike and Wayne counties. This August breakfast included a poster session focusing on the role our natural resource assets play in driving our local economy. Some of the issues addressed specific legislative initiatives while others demonstrated the positive impacts the recreational opportunities have on the overall economy of the region. The Pike/Wayne Conservation Partnership and the Pike County Conservation District wants to thank the legislators who participate each year in these important discussions.

Pike /Wayne Conservation Partnership include: Pike County Conservation District, Pike County Office of Community Planning, Delaware Highlands Conservancy, Penn State Extension, The Nature Conservancy, Alliance to Keep Pike Green, The Pinchot Institute for Conservation, the Upper Delaware Roundtable, National Park Service - Delaware Water Gap National Recreation Area, National Park Service- Upper Delaware Scenic and Recreational River, Pennsylvania Environmental Council, The Department of Conservation and Natural Resources, The Lackawaxen River Conservancy, PPL, Lake Wallenpaupack Watershed Management District, Pocono Environmental Education Center, Lacawac Sanctuary, Wayne Conservation District, the Northeast PA Audubon Society, Lackawanna College, US Forest Service at Grey Towers National Historic Site, and SEEDS (Sustainable Energy Education and Development Support).



Pictured above to the left is John Bedell with his son and P.J. Karpiak co-owner of Alice's Wonderland presenting a gift certificate for the Recreation Series winners.



Pictured above left to right: LWWMD Executive Director Nick Spinelli, Senator Elisabeth Baker, Upper Delaware Scenic and Recreational River Superintendent Sean McGuinness, PMVB Lake Wallenpaupack Visitors Center Manager Keith Williams.

District/Partnership Environmental Education Grant

The Pike County Conservation District, with the assistance of the Pike/Wayne Conservation Partnership, received a PA Department of Environmental Education Grant in 2013. The goal of the grant is to educate students, businesses, residents and visitors in Pike and Wayne Counties on the importance of stormwater management, non-point source pollution, and to promote water conservation. The focus is to provide simple ways to be a responsible steward of our clean water. Since September 2013, Pike/Wayne Conservation Partnership members have been collaborating on this project titled *Every Drop Counts!*. Rain barrels were distributed in Fall 2013 to four school districts in the region. The students designed and painted the rain barrels which have been distributed to businesses all over Pike and Wayne Counties for display. The rain barrels will be auctioned at the 2014 Annual Pike/Wayne Earth Day event with funds raised going to the schools that painted them for environmental education.

Also part of the grant was a brochure produced by the Partnership and distributed with the rain barrels to local businesses. The brochure promotes the use of rain barrels and provides simple steps individuals can take to conserve water around their own home. The brochure also promotes a website developed specifically for the project that includes a listing of Partnership sponsored programs and includes information on the Silent Auction. Programs will be presented throughout the spring that include information on stormwater management, non-point source pollution, watersheds, water quality, native plants, wetlands and stewardship. Visit the *Every Drop Counts!* website at <http://www.pikeconservation.org/EveryDropCounts.htm>!

Every
Drop
Counts!
Use a Rain Barrel



Wallenpaupack Wins 2013 Pike/Wayne Envirothon



Pictured above from left to right: are Wallenpaupack Students Emily Ciaravio, Chyanne Kemp, Danielle Spewak, Danielle Wontor, Kristina Roy, WAHS teacher/advisor Linda Lohner, and Pike County Commissioner Richard Caridi.

The *Hefty Heifers* student team from Wallenpaupack Area School District were the 2013 winners of the Pike/Wayne Envirothon. Envirothon second place went to *The Avengers* from Wallenpaupack and third place to the *Wildlife Warriors* of Delaware Valley School District. The 27th Annual Pike/Wayne Envirothon was held in May at the PPL Environmental Learning Center in Hawley.

The 2013 Pike/Wayne Envirothon also included an opportunity for students to get up close to wildlife. The Pennsylvania Game Commission Wildlife Conservation Officers demonstrated research project

processing of a tranquilized bear during the student's lunch. Processing entailed tagging the bear's ears, extracting a tooth to determine the age of the bear, and tattooing the inside of the bear's lip for tracking purposes. Kathy Uhler, Director of the Pocono Wildlife Rehabilitation and Education Center in Stroudsburg, PA, also showed a number of live animals in her presentation. The Pocono Wildlife Rehabilitation and Education Center cares for injured and orphaned wild animals until they can be released back to the wild.

Each year both Pike and Wayne Conservation Districts seek financial contributions to support this highly successful youth conservation program. Donations support the purchase of Envirothon T-shirts, educational prizes and awards. Thank you to the 2013 Envirothon sponsors:

Pennsylvania Envirothon Inc., Pennsylvania Trappers Association, Dutch's Supermarket, Wallenpaupack Veterinary Clinic, Davis R. Chant Realtors, Woodloch Pines, PPL Inc., Honesdale National Bank, Elegante's Restaurant, Wayne Bank, Honesdale Farm & Garden (Agway), Inc., Natures Grace Health Food, Dirlam Brothers Lumber Company, and Yatsonsky's Farm.



PACD Rain Garden Mini-Grant

Since 2012 the Pike County Conservation District has been working with the Pike County Area Agency on Aging, Lackawaxen Township Supervisors and Girl Scout Troop #52727 of Shohola Elementary School on a rain garden project. Funding received from the Pennsylvania Association of Conservation Districts, Inc. through a grant from the Pennsylvania Department of Environmental Protection under Section 319 of the Clean Water Act, administered by the U.S. Environmental Protection Agency assisted the District in development of this demonstration rain garden.



Girl Scout Troop #52727 pictured from left to right: Amanda Neil, Julia Cabany, Kendall Mrozinski, Kaila Dunn and Adrienne Gordon

The rain garden was installed in 2012 at the Senior Center at the Lackawaxen Fire Department at the corner of Lieutenant Corporal Jacob Beisel Road and Route 590 in Lackawaxen. In early 2013, an interpretive sign was placed at the site with the assistance of the Lackawaxen Township Supervisors. An April 2013 program open to the public explained how to install a rain garden and the benefits they provide. Girl Scout Troop #52727 adopted the Lackawaxen Senior Center Rain Garden in spring 2013 as a service project for their Girl Scout Bronze Award. The Seniors and the Scouts have learned how rain gardens help keep storm water and its accompanying contaminants out of our water supply and how the native plants growing in the garden provide nectar and habitat for native wildlife.

More Conservation Education and Outreach...

Throughout the year the District participated in a number of education and outreach activities. Below is a listing of some of these efforts:

- Awarded the PCCD Environmental Education Grant of \$500 to the Hemlock Farms Community Youth Center for the installation of an organic native plant garden near the Youth Center in their community to create a natural habitat for birds and small wildlife.
- Displayed macroinvertebrates for participants to view and identify at the Annual Pike/Wayne Earth Day Festival.
- Conducted groundwater protection education including a flow model demonstration for over 200 students and training for teachers at Wallenpaupack High School.
- Provided two scholarships to Pike County students to attend the Monroe County Conservation Camp. The Camp provided campers an opportunity to gain insight into our natural resources and their proper management.
- Worked in cooperation with the Lake Wallenpaupack Watershed Management District to provide information on the water cycle, lake ecology and wetlands at the Wallenpaupack Middle School Science Days.
- Supported and promoted educational programs of the Pike/Monroe Forest Landowners Association.
- Assisted in promotion of a Manure Management workshop for horse owners hosted by Penn State Extension, PA DEP and USDA NRCS held in Pike County.
- Provided funding for the Gifford Pinchot Audubon Society's Audubon Adventures for eight classrooms. The 2013-2014 theme - "Sharing our World with Birds" - included topics on raptors, seabirds, and hummingbirds.
- Participated in the 50th Anniversary of Grey Towers National Historic Site Celebration in Milford, PA. The District provided a contribution to the Pinchot Institute for Conservation in 2012 for the documentary, "*Seeking the Greatest Good: The Conservation Legacy of Gifford Pinchot*" which was produced in honor of the 50th Anniversary.
- Focused the 2013 District's Annual Dinner on recognition of important forest landowner initiatives in the County such as Common Waters Fund and Delaware Highlands Conservancy's Stewardship and Education efforts.



Pictured above is Vice-Chairman Bob Engvaldsen presenting Kelly Stagen of Hemlock Farms a check for the PCCD Environmental Education Project Grant of \$500



Pictured above are students from Wallenpaupack High School with District Watershed Specialist Lori Colgan during a demonstration of the Groundwater Flow Model

Dirt & Gravel Road Maintenance Program Updates



Mt. View Road Stilling Basin in Greene Township

2013 was a busy year for Pike County’s Dirt and Gravel Road Maintenance Program. The District entered into four municipal contracts, totaling over \$44,000 in grants. Greene Township provided in-kind contributions of almost \$8,000 or 15% of their total project expenditures. The 2013 projects in Greene Township were located on Old Greentown Road, Mountain View Road, Creamery Road and Beaver Dam Road and were designed to mitigate sediment pollution to streams and wetlands originating from the dirt roads. Project highlights included the replacement of two stream culverts, the replacement or addition of seven road culverts, headwall and endwall construction, grading and stabilization of roadside channels, stilling basin and outlet apron installation and the placement of Driving Surface Aggregate (DSA).



ESM two day training event held at the Pike County Training Center in November

In November, Pike County Conservation District hosted a two-day Environmentally Sensitive Maintenance (ESM) Course focused on providing the knowledge and tools necessary for road owners to maintain roads in a more cost-efficient and environmentally sensitive manner. Over 55 attendees from across the state benefited through a better understanding of ESM practices taught in this course which are designed to reduce sediment pollution and long-term road maintenance costs. Municipalities involved in the Dirt and Gravel Road Maintenance Program are required to attend an ESM training every five years to maintain program eligibility.

Late in 2013, the state’s new transportation bill was signed into law and provided for some changes to the Pennsylvania Dirt and Gravel Road Maintenance Program including a significant funding increase and the expansion of the program’s mission to include low-volume public roads. The focus of the program - “to fund safe, efficient and environmentally sound maintenance” - remains unchanged. Although some of the details are unknown, the District is looking forward to working with local municipalities in 2014 to implement these exciting changes.

Chapter 105 Waterways Management Program



Blueberry Court, Lackawaxen Township

The Waters of the Commonwealth are protected under the Federal Clean Water Act, the Commonwealth of Pennsylvania’s Dam Safety and Waterway Management and The Clean Streams Law. In 2013, some important changes took place in the Ch. 105 Dam Safety and Waterway Management Program.

The Department has increased the fees on permits related to dams and imposed fees on all General Permit registrations. These fees will allow the Department and Conservation Districts to fund its important permitting, inspection and enforcement activities under Chapter 105 that have a positive environmental benefit to the citizens of the Commonwealth. Changes have also taken place regarding how General Permits are processed. The Permit Decision Guarantee (PDG) will be used for the processing of General Permit #5. The PDG has strict timeframes for review and processing of a GP5. The same timeframes will be used for all other General Permits with some modifications for all other General Permits. The registration form has also been modified to allow for more accurate reporting of information affecting our waterways and dams.

2013 Waterways Management 105 Program Highlights	
Technical Assistance Provided	312
General Permits Acknowledged	48
Complaints Investigated	17
New Sites Inspected	22
Total Inspections	21
Combined Staff Hours	1386

Chapter 102 Erosion and Sediment Control & Stormwater Management Program

In 2013, the District worked closely with the Pennsylvania Department of Environmental Protection (DEP) to implement the Permit Decision Guarantee (PDG) executive order signed by the Governor in 2012. For PDG, new Standard Operating Procedures (SOPs), policies and forms were developed by DEP to make the permitting process as seamless as possible for applicants, Districts and DEP.

In February 2013, District Board members and Staff met with officials from ten of the thirteen Pike County municipalities to highlight some of the programs administered by the District and to discuss ways the District can work together with the municipalities on natural issues of concern within the county. Topics of this February meeting included the Dirt and Gravel Road Maintenance Program, Chapter 102, Erosion and Sediment Control, and Chapter 105, Waterways Management, implementation and the Permit Decision Guarantee protocols from PA DEP.

District staff also provided information and answered questions regarding local, state and federal permitting at the annual Lake Wallenpaupack Contractor Workshop held in March 2013. This program sponsored by PPL, discusses issues around Lake Wallenpaupack including why the water levels go up and down throughout the year, how to find PPL's property line and normal high water mark, what types of projects are permitted or prohibited, permits required for work, vegetation management rules that apply, and even some common myths around the big lake.

Throughout the year, District technical staff continued to work with applicants, consultants, municipalities and DEP on several large projects within Pike County. These projects include, the Tennessee Gas Northeast Upgrade project, Blue Heron Woods Residential Subdivision renewal, Camp JRF, Wallenpaupack Area School District Geothermal Well project, LP Cylinder, Pocono Lakefront, SR 2001- Section 402 and several PPL projects including the PPL Susquehanna Roseland Transmission line.



Pictured above: PPL Transmission Line construction
Pictured below: Masthope Recreation Facilities & Ski Area Parking construction

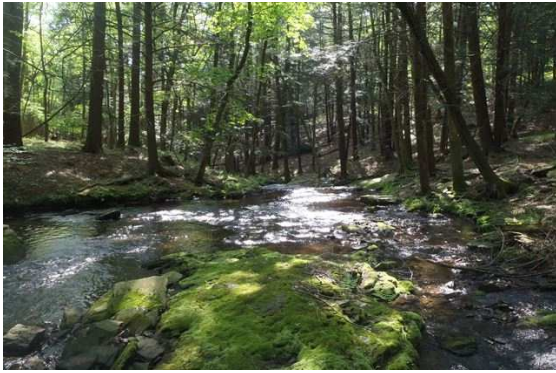


2013 E&S Control & NPDES 102 Program Highlights	
Technical Assistance Provided	644
Initial Plan Reviews	16
Follow-up Plan Reviews	63
Project Acres	2048
Total Acres Disturbed	459
Individual/General NPDES Permits Issued	4
Complaints Investigated	26
Site Inspections	234
Combined Staff Hours	5900

Gypsy Moth Program Update for 2013

Due to the low number of gypsy moth egg masses found and the lack of submissions by county and agency cooperators, the PA Department of Conservation and Natural Resources (DCNR) Division of Forest Pest Management did not conduct a gypsy moth suppression program for Pike County in 2013. DCNR will continue to monitor gypsy moth defoliation and populations in 2014 to determine if thresholds warrant implementing treatment in 2014. Updated information on this program can be found on the Pike County Conservation District website.

Monitoring Pike County's High Quality Streams



Biological monitoring of streams serves several purposes. It can provide a warning of changes in water quality, detect pollution events or other episodes which cause changes, evaluate recovery from disturbed conditions, or reveal environmental trends and cycles. Information derived from long-term biological monitoring can be used to assess water quality trends and develop programs which provide for proper conservation and protection of stream ecosystems.

Aquatic macroinvertebrates (primarily insects) and fish are important biological components of these freshwater systems. They are the fundamental sensors of any stress that occurs within a stream ecosystem. This stress can manifest itself in the health of the aquatic organisms, themselves, and/or can cause subtle or dramatic changes in overall community structure. So monitoring of the biological organisms that live in stream ecosystems and also the attributes of stream habitats and changes to these habitats can provide us with information on understanding the health of our water resources over time.

Pike County's freshwater streams range in size from small headwater streams to large rivers. Nearly all of these waterways are classified by the PA Department of Environmental Protection (DEP) as "High-Quality" or "Exceptional Value." (PA Code Title 25, Chapter 93). To understand if these systems are changing over time, Pike County Conservation District (PCCD) has been monitoring stream biology for close to 20 years. The District's monitoring has included analysis of macroinvertebrate and fish populations, habitats, some basic physical and chemical parameters such as temperature, pH, and conductivity.

Annually, PCCD monitors between 11 and 14 stream sites with over 45 stream sites county-wide included in the PCCD Surface Water Quality Monitoring Program. In 2012, the District added several special study sites to the program in order to broaden the baseline of information. During April and May 2013, Pike County Conservation District personnel conducted sampling of 14 stream sites plus an additional 11 special study sites. Fish surveys were completed in August 2013 on 5 streams with the assistance of Aquatic Resource Consulting biologists. Analysis of the information is summarized in the District's Annual "*Environmental Quality of Pike County Streams*" which is posted on the Conservation District website. See <http://www.pikeconservation.org/watershed.htm>.

A Study of Pike County's Groundwater Quality: A Spatial & Temporal Assessment (2012-2013)

Pike County is underlain by the Devonian age Marcellus Shale and other shales that have potential for natural gas development. In 2012, the U.S. Geological Survey in cooperation with the Pike County Conservation District, conducted a baseline assessment study of shallow groundwater quality in bedrock aquifers. The purpose of the study was to try to assess groundwater quality prior to possible shale-gas development in the county. This baseline assessment consisted of spatial and temporal components. The spatial component consisted of assessing 20 wells located throughout Pike County. These wells were sampled in summer 2012, and water samples were analyzed for major ions, nutrients, trace constituents, stable isotopes of water, radon -222, gross alpha- and beta-particle activity, and dissolved gases (methane, ethane, and ethene). The temporal component of the assessment included selecting 4 of the 20 wells sampled in summer 2012 which were then sampled monthly between July 2012 and June 2013. The temporal sampling was to provide data on seasonal variability in groundwater quality.

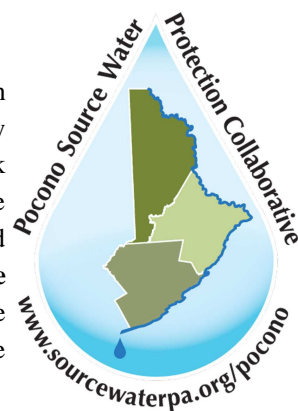
USGS Geologists and hydrogeologists conducted the 2012-2013 study. Analysis was completed late in 2013, and the results of the study will be released in 2014. Watch for the information on the USGS and the PCCD websites.

Funding for this study was provided by the USGS, Pike County Conservation District and the Pike County Scenic Rural Character Preservation Program.

Pocono Source Water Protection Collaborative Formed in 2013

Clean water has found a new friend in northeast Pennsylvania!

Early in 2013, several partners joined together to develop a collaborative which would focus on maintaining the excellent drinking water quality of Pike County and the region. Pike County Conservation District partnered with Hemlock Farms Conservancy, Milford Water Authority, Hemlock Farms Community Water Company, Twin & Walker Creeks Watershed Conservancy, Blooming Grove Township, The Lackawaxen River Conservancy, Penn State Extension, Master Well Owners, and Pennsylvania Rural Water Association to form the **Pocono Source Water Protection Collaborative** (PSWPC). The League of Women Voters Water Resource Education Network (WREN) assisted in the Collaborative's formation and provided guidance on educational outreach and water resource protection initiatives.



One of the first organizational steps of the Collaborative was the development of a Source Water Environmental Education Team (SWEET). The Team includes a number of partners who have experienced water resource educators. SWEET will bring together opportunities for focusing attention on our groundwater resources through programs, workshops, information, media and social media venues. The SWEET Team will provide information for local residents and municipal officials on the importance of keeping *Clean Drinking Water Clean*.

One of the main areas of focus for the Collaborative is to support community water systems in their drinking water protection efforts through development of source water protection plans. Source water protection planning involves actions such as mapping a water supply protection zone, identifying potential sources of contamination, and developing an emergency response plan for addressing such things as accidental spills that may impact the water supply's drinking water sources. PSWPC also hopes to extend participation of community water suppliers by highlighting the benefits and opportunities of working together.

The Collaborative was begun with assistance of a start-up grant in the amount of \$5,000 from the Water Resources Education Network, a project of the League of Women Voters of Pennsylvania Citizen Education Fund through a grant from the Pennsylvania Department of Environmental Protection for Drinking Water Source Water Protection administered by the US Environmental Protection Agency.

The Pocono Source Water Protection Collaborative meets monthly and will continue its work through 2014 and beyond. More information can be obtained by calling the Pike County Conservation District.

A Groundwater-level Monitoring Network for Pike County

The Pike County groundwater-level monitoring network was established in 2007 by U.S. Geological Survey (USGS) in cooperation with the Pike County Conservation District (PCCD). The network consists of 24 wells located throughout Pike County with at least one well in each major watershed area within the County. Geologic formations, land use and potential areas of land use change also played a role in the wells selected for inclusion in this long-term monitoring of ground water levels.

Water-level measurements in these 24 wells began in June 2007. Monitoring has continued monthly since 2007 and was on-going throughout 2013. PCCD staff collect the well observation data and cooperate with USGS geologists and hydrogeologists in this effort. Data is entered into USGS databases and is available to the public on the internet at http://groundwaterwatch.usgs.gov/countymaps/PA_103.html where Pike county data, summary statistics, and plots can be viewed.

Monthly monitoring of groundwater-levels can be used to assess the effects of seasonal and climatic changes, variations in water use as well as drought triggers and conditions. Measurements of groundwater levels are also helpful in determining changes in groundwater storage and can serve as a tool for public education to promote conservation.

Pike County Conservation District has committed to continuing this groundwater partnership with USGS through 2015. Funding for this project is provided by the USGS, PCCD and the Pike County Scenic Rural Character Preservation Program.



Picture above is a well head and the monitoring cable used for the groundwater monitoring project

Common Waters A Delaware River Partnership

Common Waters is a regional partnership of public and non-profit organizations and agencies focused on supporting the development of sustainable communities and working landscapes in the Delaware River watershed, primarily upstream of the Delaware Water Gap. The mission of the Common Waters Partnership is to conserve clean water, natural places, and working lands through cooperation, scientific research, education, and technical assistance. The Partnership facilitates information sharing through joint publications, shared web-delivery systems, and establishment of a communications network across municipal, county, and state boundaries. The Partnership also takes on collaborative projects that support and further its goals.



Clean Water. Healthy Forests. Sustainable Communities.

Common Waters Fund

One of the major initiatives of the Common Waters Partnership is the Common Waters Fund. The Fund, established in 2011 with a generous grant from the U.S. Endowment for Forestry and Communities, has a goal of linking water consumers in downstream communities with the natural resources in the Upper Delaware River watershed that provide clean water. Upstream, the program has provided forest landowners with financial incentives to sustainably manage and conserve forests in order to protect sources of high-quality drinking water. Downstream, an outreach program for local governments and the general public focused on making the connection between forests and clean drinking water has been implemented. Accelerating sustainable forest management in the Upper Delaware River region will assist with conservation of critical sources of drinking water for millions of people while also benefiting wildlife habitat, the local forest products economy, and the health of forest-reliant communities. For more information visit www.pinchot.org/gp/common_waters.



Pictured above is Jennifer and Stephen Schoonover who participated by enrolling their 230 acre property in Lehman Township in the Common Waters Fund Program

Forest Landowner Projects Funded in Pike County through Common Waters

Throughout 2013, Pike County Conservation District staff continued to make landowner contacts to assist with finalizing projects funded under the Common Waters Fund. Projects funded in 2011 and 2012 had to be completed by 2013. Just over \$200,000 (total) was spent assisting forest landowners with forest management plans and practices on approximately 14,942 acres in Pike County. Landowners in Greene, Milford, Westfall, Lackawaxen, Porter and Lehman Townships all benefited under the program by completing forest management projects that met the goals outlined in their forest plans as well as the goals of the overall Common Waters Program. These forest landowner initiatives were highlighted at the Pike County Conservation District Annual Dinner held in November. A special thanks to all the Pike County forest landowners who participated! Thanks for planning for the future of your forests and for adding to the protection of clean water.

PCCD Nominating Organizations

Pike County Conservation District Nominating Organizations provide a vital link between various community groups and the District. These groups nominate individuals for the Board of the Pike County Conservation District, helping to shape critical decisions about how we manage our community's natural wealth. The District is thankful for their continued support.

Delaware Highlands Conservancy
Gifford Pinchot Audubon Society
Milford Garden Club
Northeast PA Audubon Society
Pike Co. Agricultural Fair Association

Pike County Penn State Extension
Pike County Builders Association
Pike County Planning Commission
Pike Federation of Sportsmen's Clubs
Wayne/Pike Chapter Trout Unlimited