



## **Northampton County Conservation District**

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# **2014 Annual Report**

## **Erosion and Sediment Pollution Control Program**

In 2014, as in the past, the Erosion and Sediment Pollution Control Program was the largest program conducted by the Conservation District and accounted for the largest portion of the Conservation District's workload.

During 2014, the Conservation District received 268 Erosion and Sediment Pollution Control (E&S) Plans for review. 109 plans, covering 1,918 total project acres and 1,130 disturbed acres, were new submissions to the Conservation District. 159 plans were revisions to previous submissions. The Conservation District reviewed these plans to determine the adequacy of erosion and sediment pollution controls on earth disturbance sites. The plans were reviewed to determine adequacy with the requirements of 25 PA Code Sec. 102.1 et seq. Part of the District's income is from fees for the plan reviews.

The Conservation District staff also conducted inspections of these earth disturbance sites to ensure that the E&S plans were being properly implemented. 118 formal inspections of 65 sites were conducted throughout the year.

Part of the Conservation District's program involves meetings with consultants, developers and contractors. During 2014, 265 presubmittal, preconstruction, plan review, conference call and on-site meetings were conducted. The District also answered 16 Right-To-Know requests through the Open Records Law in 2014.

The Conservation District often receives calls from citizens or municipal officials notifying the staff of possible earth disturbance violations or sediment pollutions. The staff responds to these complaints by inspecting the sites and notifying the owners of necessary corrections, or referring the problems to the proper enforcement agencies if the problems do not fall within the jurisdiction of the Conservation District. During 2014, the staff responded to 31 formal complaints.

The Conservation District seeks voluntary compliance from property owners and developers on sites where E&S measures are not properly installed or are not sufficient to control erosion and sedimentation. If the District's efforts fail to correct the problems, enforcement action may be taken. One such enforcement action was initiated during the year.

## **NPDES Permit Program**

During 2014, the Conservation District continued to process National Pollutant Discharge Elimination System (NPDES) permits for discharges of stormwater associated with construction activities. These permits were required for construction sites disturbing one or more acres of

earth. E&S plans must be developed and deemed adequate in order to obtain permits. Additional District income is received from permit fees.

Many projects can be covered by General Permits. Projects located within Special Protection Watersheds require Individual Permits. The Conservation District processes General Permit applications and the District issues the permits. The Conservation District also processes Individual Permit applications, but the PA Department of Environmental Protection, upon the recommendation of the Conservation District, issues the permits. All NPDES permits are reviewed per the PADEP Standard Operating Procedures.

During 2014, 46 applications were received for General NPDES Permits and the Conservation District issued 44 permits. 28 applications were received during the year for Individual NPDES Permits and 10 were recommended to DEP for issuance. 30 Individual Permits were issued by DEP during 2014.

### **Dirt and Gravel Road Maintenance Program**

The Conservation District continued to administer the Dirt and Gravel Road Maintenance Program in 2014 to address erosion and sedimentation pollution as a result of unpaved roads in Northampton County. Approximately 38 miles of dirt and gravel roads exist within the county.

In 2014 funding allocation for dirt and gravel roads increased to \$100,000. Additionally, funding for addressing erosion and sedimentation on low volume roads (<500 cars/day) was also allocated to the District in the amount of \$117,000. The funding is expected to be received by the District in 2015.

The Conservation District administered a Dirt and Gravel Road grant and oversaw a project to improve Muschlitz Road in Bushkill Township. The project objectives were to make drainage improvements and place driving surface aggregate on the road. Muschlitz Road was a source of sediment pollution to the Bushkill Creek (a High Quality Stream). Prior to beginning the project, the District assisted the Center for Dirt and Gravel Roads staff in obtaining samples of Driving Surface Aggregate from Hanson Quarry in Monroe County. The samples were tested for Plasticity Index prior to the material being utilized on Muschlitz Rd. The Muschlitz Road project was completed in September.

In October 2014, District staff attended the annual Environmentally Sensitive Management training in State College, PA.

### **Nutrient Management Program**

On December 31, 2013, the Conservation District terminated its Single County Nutrient Management and Manure Management Delegation Agreement with the State Conservation Commission and the Department of Environmental Protection, and entered into a Multi-County Nutrient Management and Manure Management Delegation Agreement with Lehigh County Conservation District on January 1, 2014. These actions were taken because the Conservation District did not—due to funding constraints, no regulated Act 38 farms and otherwise minimal nutrient management requests throughout the county—employ a certified Public Dual Nutrient Management Specialist by the close of 2013, as was required under its single county delegation agreement with the Commonwealth. Therefore, the Northampton Conservation District entered

into a multi-county delegation agreement with Lehigh Conservation District, which has a Nutrient Management Specialist on staff, to ensure continued administration of nutrient and manure management programs in Northampton County. To that end, Northampton Conservation District's Agricultural Conservation Technician met with and provided Lehigh Conservation District's Nutrient Management Specialist with copies of all current and recently expired Act 38 Nutrient Management Plans for farms in Northampton County, and worked with Lehigh Conservation District's Nutrient Management Specialist on potential concerns with one previously approved Nutrient Management Plan and one manure storage issue, both of which were resolved.

Northampton Conservation District approved one Nutrient Management Plan in 2014, which was an update for a Voluntary Animal Operation for Spring Valley Farms in Washington Township, which was reviewed by and recommended for approval by Lehigh Conservation District's Nutrient Management Specialist. At the close of 2014, there were three Act 38 Nutrient Management Plans for three farms in Northampton County. All of these plans were for Volunteer Animal Operations, which require Nutrient Management Plans to participate in federal cost share programs with the USDA Natural Resources Conservation Service; there were no regulated Concentrated Animal Operations or Concentrated Animal Feeding Operations in Northampton County in 2014, which would require by law an Act 38 Nutrient Management Plan. Northampton Conservation District also received one Nutrient Management Act Program Withdrawal Letter from Equi-librium, Inc. for a previously proposed, but now cancelled, equine operation in Bushkill Township, and sent a copy of the letter to Lehigh Conservation District for its Northampton County files.

The District received Notifications for the Agricultural Utilization of Biosolids from Synagro for two farms in Lower Mount Bethel Township and one farm in Washington Township. The District also received a 2013 PA Biosolids Annual Report from Synagro for all Northampton County farms receiving biosolids, and a 2013 Land Application of Septage Annual Operating Report from Material Matters, Inc. for one farm in Upper Nazareth Township.

The District's Agricultural Conservation Technician also ordered and received from the State Conservation Commission three cases of Manure Management Plan Guidance Manuals and delivered them to Northampton County Penn State Extension for its statewide manure management trainings. Upon request from DEP, the Ag Technician also assisted DEP staff with collecting samples of cattle, chicken and hog manure from three county farms for molecular DNA testing for DEP to develop a protocol for source tracking bacteria in surface water samples.

### **Additional Agricultural Programs**

The Conservation District's Agricultural Conservation Technician assisted USDA, Natural Resources Conservation Service's (NRCS) District Conservationist with two agricultural stormwater complaints filed with the NRCS Bethlehem Field Office, and one agricultural stormwater complaint filed with Allen Township. The District's Ag Technician also assisted the NRCS District Conservationist with field surveying one farm each in Lower Mount Bethel and Upper Nazareth Townships.

District staff assisted Northampton County Farmland Preservation with inspections of preserved farms throughout the county. Information was provided on request to local farmers throughout the year about Agricultural Conservation BMPs and federal cost-share opportunities and programs.

The District's Ag Technician participated in the Annual Northeast Region DEP-PA Farm Bureau Environmental Coordinator Spring Meeting in Wilkes-Barre, in which regional and statewide agricultural resource concerns were addressed; and the Annual NRCS Local Work Group Meeting in Bethlehem, in which local resource concerns for federal farm conservation programs in Northampton and Lehigh Counties were prioritized.

The Ag Technician conducted three agricultural complaint assessments and completed and filed Complaint Handling & Problem Assessment Forms for all three: two in Bethlehem Township and one in Lower Saucon Township.

The Ag Technician developed and delivered a PowerPoint presentation on "Ag E&S Issues & BMPs" for the 2014 Lehigh Valley Master Watershed Steward Program. The Ag Technician also coordinated and led an "Ag BMP Farm Tour" to the Graver Farmstead in Moore Township as part of the 2<sup>nd</sup> Annual Delaware River Watershed Forum in Bethlehem. Lastly, the Ag Technician developed and presented an Ag Stormwater BMP PowerPoint program and coordinated an Ag BMP Farm Tour to the Brewer Farm in Washington Township as part of the District's Act 48 Teachers Workshop in 2014.

## **Educational and Informational Programs**

On April 24, 2014 the Northampton County Conservation District held its 17<sup>th</sup> annual Envirothon competition at Louise Moore Park, Bethlehem and Lower Nazareth Townships. The event was sponsored by the Conservation District, the Northampton County Parks & Recreation Division, PPL, Hanover Engineering Associates, Inc., Commerce Construction Company L.P., J.G. Pertrucci Company, Inc., Majestic Realty Company, Muschlitz Excavating, Inc., Schlouch Inc. and the Pennsylvania Envirothon. Donations were also received from Wegman's in Easton and Giant Food Stores Inc. in Nazareth, PA. Five schools competed with a total of 10 teams. Participating schools included Bangor Area High School, Nazareth Area High School, Pen Argyl Area High School, Freedom High School and Northampton Area High School. Teams were tested in five disciplines: Wildlife, Forestry, Soils and Land Use, Aquatic Ecology and a current environmental issue, Sustainable Agriculture/Locally Grown. At the competition, teams visited the five stations where their understanding and knowledge of the topics were challenged through written tests and practical application. Participating agencies included PA Game Commission, PA DCNR Bureau of Forestry and Bureau of State Parks, PA Department of Environmental Protection, and PA Fish and Boat Commission. Volunteers from the Northampton County Conservation District, Office of Farmland Preservation and Division of Parks & Recreation also assisted. Nazareth Area High School's Team #1 placed 1<sup>st</sup> with the highest cumulative score. Pen Argyl Area High School's Team #1 placed second and Bangor Area High School's team #1 finished third. Ted Veresink and Lynn Stauffer of the Conservation District Board of Directors awarded bookstore gift certificates, ~~to the winning teams and~~ plaques and medallions to the top three scoring teams. Northampton Area High School Team #2 was also presented "The Robert H. Jones Memorial Soils and Land Use Award" for having scored the highest at the Soils and Land Use station. The team was awarded a framed certificate and a bookstore gift certificate to be used to purchase materials for the school's Envirothon library. Dawn Faiello and Rick Wiltraut from the Jacobsburg Environmental Center, provided an educational presentation on "Bird Banding" for the participants. The Nazareth Area High School's Team #1 advanced to the state competition held May 20 and 21 at the Susquehanna University and PPL Montour Preserve.

On May 8, 2014, Conservation District Staff participated in Hydromania at Cedar Crest

College, Allentown, sponsored by the Lehigh Valley Water Suppliers, Inc. Soil erosion and sedimentation presentations were provided for groups of third and fourth grade students throughout the day. The students were also challenged to a game of Conservation Jeopardy which tested the students on their knowledge of erosion and sedimentation, Best Management Practices, and watershed protection.

From May through August 2014, the Northampton County Conservation District hosted an intern. Michael Mayberry, a senior at Bloomsburg University, was provided an overview of District programs and functions and joined staff members for meetings, plan reviews, construction site inspections and took part in the Fry's Run streambank restoration project. Michael assisted District staff in writing inspection reports, reviewing Erosion and Sedimentation Control Plans and archiving project files. The purpose of the internship was to give Michael experience working in his field of study, Geography and Planning.

On July 18, 2014, the Conservation District participated in the 2014 Junior Conservation School hosted by the Northampton County Federation of Sportsmen. The Conservation District staff conducted a program for 30 students at Juniperdale Farms in Plainfield Township. District staff presented an overview of Northampton County soils, reviewed the programs of the Conservation District and engaged them in game of Conservation Jeopardy, testing their knowledge of watershed issues and resolutions. Brian Fulmer, of Juniperdale Farms and a member of the Conservation District Board of Directors, also spoke about agriculture, the operation of the farm and challenges for today's farmers.

The Conservation District again provided displays and literature at the Adventures in Agriculture event in February, Plainfield Farmers' Fair in July and at the Blue Valley Farm Show in August. The displays highlighted the programs of the Conservation District, including soil erosion control, watershed and nutrient management, and educational activities.

On August 12, 2014, District Board members and guests were provided a tour which included visits to LVIP VII and Bethlehem Commerce Center (Bethlehem Steel Brownfields sites), a riparian buffer/rain garden project and a Dirt & Gravel Road project in Bath Borough.

On September 30, 2014, a District Technician presented at the Eastern PA Greenways & Trails Summit held at DeSales University. The presentation focused on state permits required for proposed trail projects; the presentation discussed when permits are required, keys to successful permit applications and common stumbling blocks for trail projects including conflicts between grant deadlines and permit requirements.

On October 23, 2014, the Northampton County Conservation District, partnering with PPL, Martins-Jacoby Watershed Association, ACF Environmental, Natural Resource Conservation Service (NRCS), and Lower Mt. Bethel Township, held an Act 48 Continuing Education Workshop titled, the "Stop the Mud". Twelve local educators participated in the workshop. The workshop provided teachers with a discussion about natural and accelerated erosion and sedimentation, history of soil conservation, land development regulations and Best Management Practices (BMPs) and agricultural BMPs. The teachers were introduced to various soil conservation demonstrations and hands-on activities they could integrate into their lessons. The workshop also included a field trip where the teachers observed BMPs in action at the Riverview West Housing Development, Victaulic Commercial Building Renovation and Jeffrey Brewer Family Farm operation. The field trip allowed the educators to compare residential and commercial land development BMPs as well as differentiate between urban land development and agricultural BMPs. Financial and other support for this project was provided by 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.

The Conservation District published four editions of its newsletter, Northampton Notes, and continued to provide current information for the general public on its website, [www.northamptoncd.org](http://www.northamptoncd.org).

## **Watershed Specialist Program**

The Conservation District Watershed Specialist provides technical, informational and organizational assistance to improve community watershed organization development, and the quality and quantity of surface and ground water resources in Northampton County. The focus of this work relates to watershed assessment, procurement of funding, technical assistance and the creation, implementation and coordination of workplans and strategies to restore and protect groundwater and surface water resources. The Watershed Specialist is a resource to both public and private sectors, and provided watershed program services in 2014 in Northampton County in the following general ways:

- Assisted in the development and use of resource inventories, land use information and available water quality assessments.
- Developed programs to achieve restoration and protection goals based on stream quality, land use and input from cooperating agencies, organizations, individuals and governing agencies.
- Facilitated the transfer of technical information among local, state and federal resource agencies, watershed groups and land managers.
- Supported existing watershed organizations with technical assistance, watershed planning and educational programs.
- Provided technical assistance in the planning and implementation of best management practices designed to restore and protect surface and ground water quality.
- Worked with municipalities and planning commissions to promote better water quality protection and stormwater management through the adoption of model ordinances and best management practices.
- Helped develop workshops and implement demonstration projects on the interrelationship of land use decisions and non-point source pollution prevention.
- Worked with watershed groups and various government agencies to complete watershed implementation plans.
- Reported to DEP on water quality improvements in waterways within the county.
- Submitted quarterly activity reports to DEP and maintained these on the Conservation District Watershed Specialist electronic database.
- Prepared public outreach efforts for local governments, the general public and media on non-point source pollution issues and what is being done by various groups in different watersheds to restore and protect local water resources.
- Encouraged agencies and landowners to cooperate in watershed initiatives and informed them of technical resources and funding opportunities that are available.
- Developed and submitted grant proposals for various watershed planning and implementation projects.
- Attended professional development workshops, conferences and trainings.

The Watershed Specialist was involved in the following specific programs and projects in 2014:

- Coordinated and assisted with four rain garden installation projects: two in Bushkill Township, Northampton County and two in Upper Saucon Township, Lehigh County; assisted in the maintenance of five previously installed rain gardens: two in Bushkill Township, two in Hellertown Borough and one in Bath Borough; assisted in the design and production of one rain garden project educational sign for two immediately-adjacent rain gardens in Bushkill Township.
- Coordinated and assisted with one riparian buffer live stake planting project in Allen Township; assessed a PPL power line stream crossing site in Moore Township for a potential live stake planting and sent pictures and preliminary request for approval to PPL; inspected five 2012 live stake planting projects on PPL power line stream crossing sites: three in Bushkill Township and one each in Allen and Lehigh Townships.
- Coordinated and assisted with construction of the Fry's Run Stream Bank Stabilization & Fish Habitat Improvement Project at Fry's Run County Park in Williams Township; developed and submitted to the Lehigh Gap Nature Center a Conservation Landscaping Grant Proposal to fund the purchase and planting of 200 trees and shrubs to create a riparian buffer along Fry's Run at the park.
- Completed and submitted to the Lehigh Valley Greenways Conservation Landscape Initiative the Conservation District's Lehigh Valley Greenways Partnership 2014 Accomplishments and its 2015 Projected Outcomes.
- Assisted developing, coordinating and delivering with program partners the 2014 Lehigh Valley Master Watershed Steward Program (MWSP) (40-hour Penn State Extension community education outreach program); wrote articles for the monthly Lehigh Valley Master Watershed Steward Network Newsletter and provided interviews to local newspapers about the MWSP; assisted preparing Cora Brooks Foundation, Environmental Protection Agency and DEP Growing Greener grant applications on behalf of the Watershed Coalition of the Lehigh Valley and Penn State Extension to fund the MWSP; met with the Centre County Watershed Specialist and Penn State Extension staff, and the Coldwater Heritage Partnership Program Director about developing and launching a MWSP in Centre County; developed and presented with the Montgomery County Watershed Specialist a webinar about the MWSP for the National Association of Conservation Districts.
- Developed a 2014 Work Plan for the Bertsch-Hokendauqua-Catasauqua Watershed Association (BHCWA) and developed an essay topic outline for the BHCWA to consider for a scholarship competition for Northampton and Catasauqua High School seniors.
- Compiled recommendations from five Bushkill Creek watershed and greenway conservation plans for the Bushkill Stream Conservancy (BSC) and began reviewing all with the BSC for feasibility and prioritization; coordinated and participated with the BSC and the PA Fish & Boat Commission in a field tour of ten recommended project sites on Bushkill Creek, and developed and presented a PowerPoint program about the field tour to BSC and Forks of the Delaware Chapter of Trout Unlimited members to further consider these projects for implementation.
- Compiled recommendations from the Saucon Creek Watershed Conservation Management Plan for the Saucon Creek Watershed Association (SCWA) and reviewed all with the SCWA for feasibility and prioritization.
- Coordinated a "Great American Cleanup" event with the Moravian College Eco Club and the Monocacy Creek Watershed Association.
- Awarded a \$5,000 Planning Grant from the Coldwater Heritage Partnership to research and develop a Coldwater Conservation Plan for the Nancy Run Watershed; coordinated and led a public information meeting about the project at the Bethlehem Township Municipal Building.

- Per DEP Northeast Regional Office request, assessed a collapsing streambank site on private property in Lower Saucon Township and sent a report of findings and photos to DEP for follow-up with the property owner.
- Developed and presented a PowerPoint program for the Northampton County Regional Environmental Advisory Council's "State of the Streams Report" meeting at Jacobsburg Environmental Education Center.
- Coordinated with the DEP and community watershed volunteers, bacteria sampling at 37 sites on 12 previously unassessed streams in Lehigh and Northampton Counties for the DEP's Recreational Use Assessment determinations.
- Assisted the Martins-Jacoby Watershed Association with field, consultant and public meetings and streamside property owner mailings for the Oughoughton Creek Watershed Assessment Project.
- Provided "Watershed Conservation Goals" to the Northampton County Open Space Program Director for consideration and inclusion in the development of the Northampton County Open Space Plan.
- Coordinated and assisted in presenting three community education and outreach programs for the Monocacy Creek Watershed Association: a rain barrel workshop, Bethlehem City water and sewer systems presentation, and a live wildlife presentation.
- Met with Nestle Waters' Natural Resource Manager about concerns with a proposed bypass pumping operation at Nestles' Greenwalk source water site in Washington Township.
- Met with Rep. Julie Harhart, a legislative aide and two constituents on a streamside property on Fry's Run in Northampton Borough regarding streambank erosion issues, and provided all with information on DEP's Chapter 105 Program, the DEP General Permit 3 Application and the DEP Northeast Regional Office contact information.
- Provided on request resource and professional contact information on dam removals to Rep. Justin Simmons office in Coopersburg, Lehigh County.
- Provided on request the PA Fish & Boat Commission (PFBC) Area 5 Fisheries Manager with a compact disc of the PennEast Pipeline Preferred Route to identify and address unassessed streams in the preferred pipeline right-of-way in PFBC's Area 5.
- Participated in a field meeting at Lions Park in Washington Township with members of the local Lions Club and the Martins-Jacoby Watershed Association to assess proposed stream improvements on Oughoughton Creek at Lions Park.
- Coordinated and participated in a meeting with Nazareth Moravian Church leaders and the Northampton County Open Space Program Director about conserving through sale or a conservation easement the church-owned Black Rock Woodlands in Nazareth Borough.
- Visited with a Penn State Extension horticulturist a stormwater BMP meadow at Palmer View subdivision in Palmer Township to identify invasive weeds and meadow management recommendations, and provided weed identification and meadow management recommendations to the project site and landscape foremen.
- Requested and received a design proof and price estimate for producing two Hokendauqua Creek road-stream crossing signs for Northampton Borough, and secured funding for the signs from the Bertsch-Hokendauqua-Catasauqua Watershed Association.
- Participated in two meetings at the Atlas Dam removal site in Northampton Borough about planning for streamside plantings and other site rehabilitation projects.
- Attended and participated in the two-day Delaware River Watershed Forum in Bethlehem.
- Participated in the Delaware River Watershed Coalition Workgroup Meeting to strategize a plan to compile and develop a database for all the watershed conservation plans from throughout the Delaware River Basin.
- Attended and participated in DEP's Northeast Region Watershed Specialist Meeting.

- Attended the Annual Watershed Specialist Conference in State College and presented a PowerPoint program on the Lehigh Valley Master Watershed Steward Program.
- Attended the Annual Keystone Coldwater Conference in State College and presented a brief summary of the Nancy Run Coldwater Conservation Project, which the conference sponsor, the Coldwater Heritage Partnership, funded.
- Attended and participated in a Live Stake Planting Workshop in Palmyra.
- Served as secretary/treasurer for the Watershed Coalition of the Lehigh Valley (WCLV) and oversaw all aspects of the WCLV's financial management and developed meeting agendas and minutes for WCLV monthly meetings.
- Served on the Lehigh Valley Natural Areas Inventory Update Advisory Committee.
- Served on the Lehigh Valley Greenways Steering Committee.
- Served on the Lehigh Valley Return on Environment Partnership Committee.
- Served on the Northampton County Livable Landscapes Steering Committee.
- Served on the Hercules Cement Company Community Outreach Committee.
- Served on Lehigh Gap Nature Center's Landscaping Grant Project Committee.
- Regularly met and worked with the following community watershed organizations: Bushkill Stream Conservancy, Bertsch-Hokendauqua-Catasauqua Watershed Association, Fry's Run Watershed Association, Martins-Jacoby Watershed Association, Monocacy Creek Watershed Association, Nancy Run Watershed Association, Saucon Creek Watershed Association and the Watershed Coalition of the Lehigh Valley.

### **Other Programs and Activities**

Throughout the year, the Conservation District continued to work closely with the PA Fish and Boat Commission on complaint responses, permitting concerns, plan reviews and site inspections.