

Irving Mill Dam removed

The Irving Mill Dam, one of five blockages on Ridley Creek in Delaware County, has been removed following three years of planning and permitting. The dam was located between Chester City and Nether Providence Township. A second blockage, the Sharpless Dam, is slated to be removed this summer. Together this will restore approximately two and a half miles of the stream.

The dams were found to have detrimental effects of the communities. They prevent fish like American Shad from returning to the fresh water stream to spawn after spending a year in salt water. In addition, they have had a negative effect on water quality, especially in the impoundment area. Increased sedimentation, poor dissolved oxygen, and warmer temperatures lead to decreased fish and macroinvertebrate communities. Dams are also a public safety issue, and dozens of lives have been lost on the blockages in Ridley Creek.

The Delco Anglers, a local fishing group that has accomplished several stream restoration projects and operates a trout hatchery, sponsored the Irving Mill Dam removal. It was accomplished with funding and support from American Rivers, National Atmospheric and Oceanic

Administration, PA DEP, PA Fish and Boat Commission, and the Delaware County Conservation District.

Dam removal projects usually take less than a year to complete from permitting to final grade, however, the Irving Mill Dam was found to be a unique project due to some historical and legal issues regarding ownership and a pipeline crossing. It is occasionally difficult to determine ownership of old dams, especially if they have been left off deed transfers. Once the permit was acquired and a public meeting held, the actual deconstruction was accomplished in 10 days. A cross vane was also installed upstream of the dam location to ensure the pipeline would be protected. Eroded banks were graded to stable inclines, seeded and mulched.

A creek cleanup and tree planting is scheduled for the spring. American shad that were placed in the creek last spring are expected to return to Ridley Creek for spawning sometime this spring.

Bill Gothier

Delaware County Conservation District



Irving Mill Dam in January 2004



Scene following removal of Irving Mill Dam in January 2005

“Preparing for an Envirothon”

in Montgomery County

The Montgomery County Envirothon Committee is pleased to offer the course “Preparing for an Envirothon” for ACT 48 credit. The course will be held on Saturday, March 12th, 2005 at the Montgomery County Community College in Pottstown from 8:00 am – 3:30pm.

Representatives from Bureau of Forestry, Elmwood Park Zoo, PA Fish and Boat, PA Game Commission, Natural Resource Conservation Service, Mill Grove Audubon, Montgomery County Conservation District, Montgomery County Dept. of Parks, and Riverbend Environmental Education Center will discuss how to prepare students on Envirothon topics such as Aquatic Ecology, Forestry, Soils, Wildlife, and this year’s current topic “Managing Cultural Landscapes”.

Envirothon advisors from throughout the SEPA region are invited to attend this session. The deadline for registration is March 4th, 2005. For more information and to download the registration form, please visit www.montgomeryconservation.org/envirothon, or call Susan Greth at 610-489-4506, ext. 19.

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The importance of pre-construction meetings

Lately the conservation district has noticed an increase in the number of sites that have permits but have not held pre-construction meetings. Generally, contacting the county conservation district is the first step on the sequence of construction. Holding a pre-construction meeting is not only important for district employees, but also for everyone involved in the project. It is a way to get everyone on the same page. Important issues typically covered at a pre-construction meeting include:

- Sequence of construction
- Any revisions to existing Erosion & Sediment control plan
- Maintenance of Erosion & Sediment controls
- DEP regulations and procedures- i.e. co-permittees, expiration dates and renewal requirements, field orders
- Any questions from permittees and contractors

As the district conducts normal field inspections, we occasionally come across sites that have permits but have not scheduled a pre-construction meeting. A simple phone call to the district can save everyone involved a lot of headache and start your site off on the right foot.

— Kevin Boyle & Bridget Thompson
Delaware County Conservation District

Chester County's Coastal Nonpoint Pollution Program protects streams

The Chester County Conservation District is taking part in the Coastal Nonpoint Pollution Program (CNPP). The program, headed by NOAA and administered by the PA DEP, is designed to identify and eliminate nonpoint pollution within in the Coastal Zone regions. The Coastal Zone Management region (CZM) in Chester County is made up of the streams that are tributary to the Schuylkill and Delaware rivers mainly in northern and eastern Chester County. Approximately 90% of these streams are designated as High Quality or Exceptional Value, making the mission of the CNPP all the more important.

The CNPP grant awarded to the conservation district is for an Implementation and Compliance Tracking Project. The \$25,000 grant, along with the district's matching funds, has provided many benefits to the Coastal Zone Management Area, such as a greater field presence in seeking compliance from the regulated community, working to implement Agricultural Best Management Practices (BMPs) on county farms, responding to complaints, and public outreach through educational efforts.


Many challenges confront the conservation district in the New Year. As development continues to spread through the CZM region, more pressure will be placed on our soil and water resources. Agriculture remains Chester County's number 1 economic activity. With this in mind the conservation district looks forward to continually working with the Coastal Nonpoint Pollution Program and achieving our mission of "Promoting the Sustainable Use of Natural Resources Through Educational and Technical Assistance".

For more information about the Coastal Nonpoint Pollution Program in Chester County contact Joe Sofranko at jsofranko@chesco.org or (610) 696-5126.

Joe Sofranko
Chester County Conservation District




A view of the Schuylkill River off Route 113 outside the Borough of Phoenixville.



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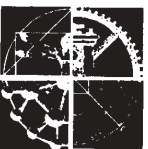
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Restoration project to begin

The Bucks County Conservation District will begin a restoration project in the Core Creek/Lake Luxembourg Watershed later this year. After completing a Watershed Implementation Plan for the Core Creek Watershed in December of 2004, the district was awarded \$96,000 to begin implementing Best Management Practices within the watershed to help achieve the Core Creek TMDL goal. To complete work on this project, the Bucks County Conservation District has contracted Princeton Hydro, Inc. as their consulting firm.

Planned Projects include:

- 1400 ft. of shoreline restoration – streambank and lake shoreline areas will be graded and planted with native species
- Constructed wetlands – pocket wetlands will be constructed along a section of stream leading to Lake Luxembourg to reduce total suspended sediments in the water.
- Drop inlet filtration devices will be installed in several locations to filter stormwater before it reaches the Core Creek.

For more information please call Gretchen Schatschneider at Bucks County Conservation District.

*Gretchen Schatschneider
Bucks County Conservation District*



Urban Land Use Quiz

- Poor drainage is a typical problem for urban soils. Which two forces listed below control how water moves in soil?
 - Magnetism and Permeability
 - Transpiration and Retention
 - Evaporation and Infiltration
 - Gravity and Capillary Action
- Which soil problem(s) below can typically be found in an urban area?
 - Soil compaction due to heavy construction equipment
 - Impervious surfaces prevent nutrient recycling
 - Diminished soil fertility due to removal of topsoil.
 - All of the above
- An area of land from which all water drains, running downhill, to a shared destination is known as a(n)
 - Estuary
 - Flood plain
 - Watershed
 - Reservior
- An impervious surface is best described as
 - A surface that has a great absorption capacity.
 - A surface that allows for recharge of ground water.
 - A surface that reduces absorption capacity.
 - A surface that consists primarily of vegetated land.
- List an alternative product/practice to each of these home construction projects, which a homeowner could use to decrease impervious area and run-off.
 - Concrete Patio _____
 - Paved Driveway _____
 - Grass Lawn _____
 - Rain spouts into drains _____

- (5) a. Wood deck, un-mortared brick or stone patio
 (1) d 2) d 3) c 4) c
 b. Gravel, pervious asphalt or grass paving
 c. Native groundcovers, mixed beds, trees and shrubs
 d) Spouting into rain barrels or rain gardens

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Fifth Annual Land Ethics Symposium:

Creative Approaches for Ecological Landscaping

On Thursday, **February 17, 2005**, Bowman's Hill Wildflower Preserve will sponsor its Fifth Annual Land Ethics Symposium: *Creative Approaches for Ecological Landscaping*. The Symposium will be held at the Sheraton Bucks County Hotel, Langhorne, Pennsylvania, convenient to I-95 and the Pennsylvania Turnpike.

This event begins at 8:15 a.m. with registration, continental breakfast and book sales. The program takes place from 9 a.m. to 4:15 p.m.

This stimulating and informative Symposium will focus on ways to create low-maintenance, economical, and ecologically balanced landscapes using native plants and restoration techniques. The Symposium is geared toward landscape architects, designers, contractors and other members of the landscape industry, environmental consultants, public and private land managers/owners, land planners and developers, and state/municipal officials.

Symposium co-sponsors for 2005 include Solebury Township, County of Bucks Office of the Commissioners, Andropogon Associates and the PA/DE Chapter of American Society of Landscape Architects.

This popular program features presentations by dynamic experts who will share cutting-edge, as well as time-honored, principles and practices for ecological landscaping in our region.

Featured speakers and topics for the 2005 Symposium include:

Neil Diboll, Consulting Ecologist and Landscape Designer, Prairie Nursery- "Five Steps to Successful Prairie Meadow Establishment"

Sara Pevaroff Schuh, Registered Landscape Architect and Principal, Salt Design Studio- "Revitalizing Urban Ecology"

Jeffrey Keller, Restoration Ecologist and Principal, Habitat by Design- "Creating Biodiversity through Landscape Restoration"

Mark Gutshall, Certified Wetland Consultant, LandStudies- "New Uses for Old Floodplains"

Miles Arnott, Botanist and Executive Director, Bowman's Hill Wildflower Preserve- "Speaking the Native Language: Choice Plants for Ecological Design"

A selection of topical books from the Bowman's Hill Wildflower Preserve Twinleaf Shop will be available for purchase. Attendees also will have opportunities to develop contacts with colleagues and share resources.

Continuing education credits are available through various professional organizations; please inquire for details. The Symposium will be held at the Sheraton Bucks County Hotel, Langhorne, Pennsylvania located in Bucks County and convenient to I-95 and the Pennsylvania Turnpike.

Pre-registration required. The fee for the Symposium is \$85 and includes continental breakfast, refreshments and lunch. The fee for fulltime student with ID is \$60. Pre-registration with payment must be received by Thursday, February 10. Confirmation and directions will be mailed to registrants.

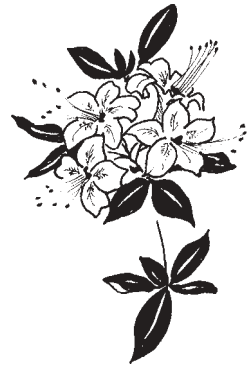
For more information and to receive a brochure form, call Nancy Beaubaire or Hildy Ellis at (215) 862-2924 or e-mail beaubaire@bhwp.org. The brochure also can be downloaded from the Preserve website, www.bhwp.org (on the homepage under "Latest News").


Watershed Association presents lecture series

The Southampton Watershed Association will host a public meeting on Monday, **March 14, 2005** at 7 p.m. in the Upper Southampton Township Library at 939 Street Road. The Southampton Watershed Association is pleased to present representatives of the Bowman's Hill Wildflower Preserve as speakers in this lecture series.

Bowman's Hill Wildflower Preserve is located on River Road in Solebury Township, and is home to one of the largest populations of native Bucks County flora, including many rare and endangered species. Bowman's Hill Wildflower Preserve is dedicated to educating the public about the use of native plants and environmental landscaping techniques. Please join the Southampton Watershed Association in learning more about what Bowman's Hill has to offer!

Gretchen Schatschneider
Bucks County Conservation District





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EPA Site Inspections in Chester County

On November 15 and 17, 2004, the Chester County Conservation District Staff had the privilege of accompanying the Environmental Protection Agency (EPA) on site inspections in the Schuylkill River Watershed. The inspection was in response to notification from EPA showing interest in the erosion and sediment control aspects of specific sites within the watershed.

The federal duo consisted of an employee of the agency and a representative of the Science Applications International Corporation (SAIC), an environmental firm located in Kernersville, North Carolina. SAIC is contracted by EPA for inspections throughout the country. Gaye Lynn Criswell and Brad Eldred represented the conservation district. The inspections were conducted on various sites in Charlestown Township, Schuylkill Township, and Phoenixville Borough.


EPA evaluated the site representatives' paperwork, including the site address, NPDES Permit, co-permittee paperwork, start of construction date, pre-construction meeting date, self inspection logs, amount of disturbance, total project acres, stamped and approved plans, PPC plans, sequence of construction, and post construction storm water management plans. After examining all of this information, a physical walk-through inspection was conducted at each site. During this portion, EPA looked primarily at sediment basins and outlets, physical implementation of the approved plans, inlet protection, concrete wash areas and their locations, porta-potties and their locations, rock construction entrances and their locations, all E&S BMP installation and maintenance, on-lot maintenance, and overall stabilization.

In general, we found that these sites were not prepared for the inspections. Paperwork was lacking in many aspects with no site possessing everything that was required. Most issues were related to permit paperwork, stamped plans, and weekly inspection logs. In addition, most of the sites did not rate well in the E&S walkthrough. Poor stabilization, BMP maintenance, and on-lot issues were the most common red marks for the field evaluations.


All in all, the inspections were beneficial and educational. The EPA looked at many of the same issues as the Conservation District, but in greater depth. It is not clear what the impact of the EPA inspections will have on the developers. Our understanding is that all data will be compiled for future use or action.

Brad Eldred
Chester County Conservation District

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For Information Contact:
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Factors that impair the efficiency of sediment basins

It's funny sometimes what you find when you are cleaning off your desk — if you've seen my desk, you'd wonder how, as a district manager, I get any work done! Yesterday I did find a sheet with information compiled from various references that may be useful to readers of this newsletter.

Factors that Impair Trapping Efficiency:

- x Large storm events (greater than the two-year storm)
- x Moderate to low incoming TSS concentration
- x Sediment deposits on the bottom are re-suspended, or sides erode
- x Fine particle sizes in incoming runoff (silt and clay particles 40 microns or less)
- x Advanced stage of construction, with storm drains and paved roadways increasing runoff volume/velocity
- x Low intensity, long duration rainfall events
- x Length-to-width ratios of 1:1 or less
- x Multiple inlets, particularly if not stabilized or if their invert is more than a foot above the basin floor
- x Steep sided slopes, particularly in non-growing seasons or poor vegetative cover
- x Turbulent energy in runoff
- x Cold water temperatures (below 40degrees F)
- x Absence of standing water in basin
- x Upland soils are in C and D hydrological soil groups or highly erodible soils

If you look at these items closely, you can see why conservation district and PADEP staff request certain notes or items to be placed on Erosion and Sediment Pollution Control Plans. For instance, we get questioned routinely on the issue of "Why do I have to stabilize the inside of a sediment basin or trap? It's just going to collect the mud?" If it's not stabilized initially, resuspended solids have been shown to discharge more than the new material deposited in the basin in new storm events. That is why in Chester County we are requiring the basins to be stabilized with Erosion Control Blankets if construction of basins or traps is started in non-growing periods.

In addition, developers/ earth movers may be requested to clean out a sediment basin towards the latter part of the project, because the run off volume/velocity has increase due to the roadways, houses, and storm drains being built. More sediment is being discharged from the basin. The argument raised is, "Well we will be done in 6 months, why clean it out now?" The basin's efficiency has been greatly reduced and it may have to be cleaned more frequently.

If anyone has comments on the issue of basin/trap efficiency please email me at dgreig@chesco.org.

*Dan Greig
Chester Co. Conservation District*

Bucks District moves

Bucks County Conservation District staff moved out of their cramped 1,900 square-foot office and into a spacious 3,300 square-foot facility on January 10. The new office is located in the village of Fountainville, near Route 313, and less than a half mile west of the Route 611 Bypass.

Their address is

1456 Ferry Rd., Suite 704
Doylestown, PA 18901

The phone and fax numbers remain the same.



The newly constructed offices of the Bucks County Conservation District in Fountainville.



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New Employees

The Montgomery County Conservation District recently welcomed two new employees.

Bryan Astheimer is the newest Erosion and Sediment Control Technician. Bryan is a recent Penn State graduate who majored in Forest Science and Watershed Management.

Prior to coming to the conservation district, Bryan held internships with the PA DEP and the Center for Watershed Protection. More recently, he was an Environmental Management Fellow with the Chesapeake Research Consortium, where he assisted with the EPA's Chesapeake Bay Program in developing its Watershed Model and Tributary Strategies.

Bryan is excited about his new position and is looking forward to working with the MCCD.



Gus Meyer was hired by the MCCD to fulfill the role of Agriculture Conservation Technician. He is a Penn State graduate.

Before coming to MCCD, Gus worked in the recreation profession for the Pottstown School District and his family's water park business. Growing up in Northern Chester County, Gus understands the issues and concerns that are associated with the Ag Community, as he has been a farm hand for cash crop and produce farmers in E. Vincent Township. A member of his township's Environmental Advisory Council, he brings skills in construction, environmental interpretation/education and organizational management to his position with MCCD.

Gus hopes to realize his goal of having his concern for conservation and the environment become a rewarding career.




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A 10% discount is offered for inserting an ad in two or more issues. Ad deadline for the Spring issue is March 15, 2005. Send your check payable to the Delaware County Conservation District and camera-ready copy to Ed Magargee, Delaware County Conservation District, Rose Tree Park - Hunt Club, 1521 N. Providence Road, Media, PA 19063; Phone (610) 892-9484.

CONSERVATION & YOU is published by the Bucks, Chester, Delaware and Montgomery County Conservation Districts in cooperation with the PaDEP, Bureau of Land and Water Conservation. For advertising information, call (610)892-9484.

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