

## WAY E-NEWS

*A coalition of stakeholders committed to being innovative leaders  
encouraging watershed-based planning, restoration and protection*



Monday, March 18, 2013

A PUBLIC-PRIVATE PARTNERSHIP

Volume 13, Issue 6

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## WATERSHED CONTACTS

## COUNTY PLANNING - (717) 771-9870

## CONSERVATION - (717) 840-7430

- Agricultural conservation planning
- Environmentally sensitive dirt & gravel road maintenance
- Environmental stewardship and watershed protection
- Erosion & sediment control
- Stormwater complaints

## 24-HR EMERGENCIES - (877) 333-1904

- Chemical and oil spills from transport trucks, trains and industrial facilities

## ENVIRONMENTAL - DEP-SCRO

- General Info 717-705-4700
- Air Quality 717-705-4702
- Energy & Technology 717-705-4703
- Environmental Cleanup 717-705-4705
- Mining (800) 541-2050
- Radiation Protection 717-705-4704
- Waste Management 717-705-4706
- Water Supply Management 717-705-4708

- Water Management 717-705-4707

- Watershed Management 717-705-4704

## FISHERIES - (800) 541-2050

- Wildlife (fish, reptiles, amphibians) nuisance problems or to report violations
- FISH KILL 1-855-347-4545

## GAME &amp; WILDLIFE - (888) 742-8001

- Wildlife (mammals or birds) to report violations or nuisance problems

## ILLEGAL DUMPING

- Illegal dumping on state forest and park lands (877) 772-3673

- Illegal dumping York County 840-7687

## MUNICIPAL (Phonebook Blue Pages)

- Air pollution by burning household garbage
  - Dumping waste in surface waters
  - Floodplain disturbances
  - Municipal and residential septic/sewage problems
  - Stormwater management
- NOXIOUS PLANTS - (717) 772-5209**  
**RECYCLING - (717) 845-1066**  
**WETLANDS - (717) 249-2522**

Updated 4/27/2011

## WATERSHED ALLIANCE NEWS

### [Ag Land Preservation Board of York County](http://www.york-county.org/gov/AUTH/agri.htm) – [www.york-county.org/gov/AUTH/agri.htm](http://www.york-county.org/gov/AUTH/agri.htm)

- For information contact Patty McCandless at [pmccandless@york-county.org](mailto:pmccandless@york-county.org) or call 717-840-7400.

### [Carroll Citizens for Sensible Growth](http://carrollcitizens.com/) - <http://carrollcitizens.com/>

- Contact: Deana Weaver at (717) 432-2211 or [admin@carrollcitizens.com](mailto:admin@carrollcitizens.com)

### [Codorus Creek Watershed Association](http://www.codoruscreek.net) – [www.codoruscreek.net](http://www.codoruscreek.net)

- April 15 – Meeting of Members and Board, 7:00 pm, at York Water Co. (Mt. Rose Ave.)
- Contact: Jim Leaman at 843-2929

### [Codorus Endowment Implementation Committee](http://www.yccf.org) – [www.yccf.org](http://www.yccf.org)

- For more information, contact the York County Community Foundation at 717.848.3733; Email: [info@yccf.org](mailto:info@yccf.org)

### [Codorus State Park](#)

- Contact Manager Warren Werntz, Codorus state Park Ph: 717-637-2816; E-mail: [codoruspp@pa.gov](mailto:codoruspp@pa.gov)

### [Conewago Canoe Club](http://www.conewagocanooclub.org) – [www.conewagocanooclub.org](http://www.conewagocanooclub.org)

- Club Meets bi-monthly at Mount Zion United Church of Christ, 7:00 pm, at Ridgewood Road in Pleasureville
- Questions or comments e-mail me [oc1mike@comcast.net](mailto:oc1mike@comcast.net), but remember you catch more flies with honey than vinegar.

### [Deer Creek Watershed Association](http://deercreekwatershed.com/) – <http://deercreekwatershed.com/>

- Contact Lee McDaniel at [ldmcdaniel@aol.com](mailto:ldmcdaniel@aol.com).

### [Farm & Natural Lands Trust of York County](http://www.farmtrust.org) – [www.farmtrust.org](http://www.farmtrust.org)

- Contact: Sean Kenny at Farm & Natural Lands Trust of York County. Ph: (717) 843-4411 or e-mail [skenny@farmtrust.org](mailto:skenny@farmtrust.org)

### [Gifford Pinchot State Park](http://www.dcnr.state.pa.us/stateparks/parks/giffordpinchot.aspx) – [www.dcnr.state.pa.us/stateparks/parks/giffordpinchot.aspx](http://www.dcnr.state.pa.us/stateparks/parks/giffordpinchot.aspx)

- Event calendar <http://www.dcnr.state.pa.us/Calendar/list.asp>
- Contact Elizabeth Kepley, Environmental Education Specialist, DCNR Bureau of State Parks. Ph: 717-432-5011

### [Gunpowder Valley Conservancy](http://www.gunpowderfalls.org) – [www.gunpowderfalls.org](http://www.gunpowderfalls.org)

- Contact: Gunpowder Valley Conservancy, P.O. Box 9733. Towson, MD 21284. Or Assistant Project Manager Rachel Streusand [rstreusand@gunpowderfalls.org](mailto:rstreusand@gunpowderfalls.org).

### [Horn Farm Center for Agricultural Education](http://www.hornfarmcenter.org) – [www.hornfarmcenter.org](http://www.hornfarmcenter.org)

- Contact: Horn Farm Center for Agricultural Education. Ph: (717)654-0571. Email: [info@hornfarmcenter.org](mailto:info@hornfarmcenter.org). Web: [www.hornfarmcenter.org](http://www.hornfarmcenter.org).

### [Izaak Walton League York Chapter #67](http://www.yorkchapter67iwla.org/) – [www.yorkchapter67iwla.org/](http://www.yorkchapter67iwla.org/)

- Club Open Meetings are held the Third Tuesday of each month at 7pm in the Clubhouse.
- Contact: York Chapter #67 IWLA. Ph: 717-428-2000

### [Lower Susquehanna Riverkeeper](http://www.lowersusquehannariverkeeper.org) – [www.lowersusquehannariverkeeper.org](http://www.lowersusquehannariverkeeper.org)

- Contact: Michael Helfrich, Lower Susquehanna RIVERKEEPER®, York, PA. Cell phone: 717-779-7915 E-mail: [lawsusriver@hotmail.com](mailto:lawsusriver@hotmail.com).

### [Maryland's Upper West Shore Trib Team](http://www.dnr.state.md.us/waters/tribstrat/) – <http://www.dnr.state.md.us/waters/tribstrat/>

- Contact: Rupert Rossetti, Tributary Team Coordinator, e-mail: [RupertRossetti@aol.com](mailto:RupertRossetti@aol.com)

### [Mason-Dixon Trail System, Inc.](http://www.masondixontrail.org/) - <http://www.masondixontrail.org/>

- Contact: James Hooper at 717/252-3784 or [j.e.hooper@ieee.org](mailto:j.e.hooper@ieee.org)

### [Mid-Atlantic Ecological Landscapes Partnership \[MAEscapes\]](http://www.maescapes.org) – [www.maescapes.org](http://www.maescapes.org)

- April 29 – Advisory Board meets at 6:30 PM, at the York County ANNEX
- Contact: 717-840-7408 or Connie Schmotzer at [cxs51@psu.edu](mailto:cxs51@psu.edu)

### [Peach Bottom Concerned Citizens Group Inc.](http://www.pbccg.com) - [www.pbccg.com](http://www.pbccg.com)

- Contact Maria Payan by email [pbccg@hotmail.com](mailto:pbccg@hotmail.com) or mail: Peach Bottom Concerned Citizens Group, P.O. Box 307 Delta, PA 17314. PBCCG, Inc is a nonprofit organization supported solely by volunteers and donations.

### [Prettyboy Watershed Alliance](http://www.prettyboywatershed.org) – [www.prettyboywatershed.org](http://www.prettyboywatershed.org)

- Contact: Nancy Shaper at [nshaper@ihmi.edu](mailto:nshaper@ihmi.edu)

### [Sierra Club – Gov. Pinchot Group of PA](http://pennsylvania.sierraclub.org/pinchot/) – <http://pennsylvania.sierraclub.org/pinchot/>

- Contact GVP Sierra Club, P.O. Box 606, Harrisburg, PA 17108-0606. [GVPsierraClub@email.com](mailto:GVPsierraClub@email.com)

### [Shank's Mare Outfitters GO PLAY OUTSIDE!](http://www.shanksmare.com) – [www.shanksmare.com](http://www.shanksmare.com)

- Call Us: 717-252-1616. Email us: [Shanksmare@comcast.net](mailto:Shanksmare@comcast.net)

**Spoutwood Farm Center for Sustainable Living** - [www.spoutwood.com](http://www.spoutwood.com)

- April 12 – Board of Directors meeting, 6:30 PM, at Spoutwood Farm Center.
- Contact Rob & Lucy Woods at Spoutwood Farm at 717-235-6610 or [spoutwood@comcast.net](mailto:spoutwood@comcast.net).

**Susquehanna Gateway Heritage Area** - <http://www.susquehannaheritage.org/>

- Contact Mark Platts, Susquehanna Heritage Corporation. Ph: 717-252-0229. E-mail: [info@lyhr.org](mailto:info@lyhr.org).

**Trout Unlimited Codorus Chapter #558** - [www.codorustu.org](http://www.codorustu.org)

- Monthly Chapter Meetings 2nd Wednesday, 7:00 p.m., at Gander Mtn. (winter)
- Contact: Tom Finenze at 840-1372 or [tom@codorustu.org](mailto:tom@codorustu.org)

**Trout Unlimited Muddy Creek Chapter #575** - <http://muddycreektu.org/>

- Chapter Meeting 3<sup>rd</sup> Wednesday of month at Gander Mtn. (winter)
- Contact: Ron Heuston, President MCTU, 244-1851 or [Heuy1955@aol.com](mailto:Heuy1955@aol.com)

**Watershed Alliance of Adams County** - <http://www.adamswatersheds.org/>

- WAAC meets the 4<sup>th</sup> Wed, 8:30AM, at the Adams County Ag Center
- Contact: Adam McClain, Ph: 717-334-0636; E-mail: [stilden@adamswatersheds.org](mailto:stilden@adamswatersheds.org)

**Watershed Alliance of York** - [www.watershedsyork.org](http://www.watershedsyork.org)

- April 3, 2013 – Annual Meeting of WAY Board of Directors, 7:00 PM, at The York Water Co., Mt. Rose Ave.
- WAY E-News – Published by the Watershed Alliance of York, Inc. to inform the public about news and information that affect York County watersheds and beyond. PLEASE SHARE WITH YOUR MEMBERSHIP AND E-MAIL LIST. Contributions of news, events and information relating to watershed education, funding, planning, restoration, protection, and stewardship welcome. Send contribution to and contact us for mailing list additions/changes to the e-mail address below. Distribution: electronic (1,850). Frequency: bi-weekly. Subscription: No charge. Editor: Gary R. Peacock.
- Contact: Watershed Alliance of York, Inc. (WAY), C/o York County Conservation District, 118 Pleasant Acres Road, York, PA 17402. Phone: (717) 840-7430. Facsimile: (717) 755-0301. E-mail: [gpeacock@yorkccd.org](mailto:gpeacock@yorkccd.org)

**Wecology** - [www.wecologypa.org/](http://www.wecologypa.org/)

- Contact: Wecology 130 E. Market St., York, PA 17405. Phone: 717-718-7554.

**Yellow Breeches Watershed Association** - [www.ybwa.org](http://www.ybwa.org)

- Contact: Deborah Goetz, at [deborah.p.goetz@gmail.com](mailto:deborah.p.goetz@gmail.com) or phone 717-697-4734

**York-Adams Regional Smart Growth Coalition** - [www.yorkadamssmartgrowth.org](http://www.yorkadamssmartgrowth.org)

- Contact Shanna Wiest, Government Affairs Director, REALTORS Association of York & Adams Counties, Inc. Ph: (717) 843-7891. Fax: (717) 854-0720. <http://www.rayac.com>

**York Audubon Society** - <http://www.yorkaudubon.org/>

- Contact Tom Smith at 717-246-9767 or [tjs35@psu.edu](mailto:tjs35@psu.edu).

**York County Conservation District** - [www.yorkccd.org](http://www.yorkccd.org)

- Board meets 2nd Friday, 11:00 a.m. (December-March) and 2nd Thursday, 7:00 p.m. (Apr.-Nov.), at the York County ANNEX
- Contact: YCCD at 717-840-7430 or [yorkccd@yorkccd.org](mailto:yorkccd@yorkccd.org)

**York County Parks & Recreation** - [www.YorkCountyParks.org](http://www.YorkCountyParks.org)

- For more information, contact York County Department of Parks and Recreation. Ph: (717) 840-7440. E-mail: [Parks@York-County.org](mailto:Parks@York-County.org). Web: [www.YorkCountyParks.org](http://www.YorkCountyParks.org).

**York County Planning Commission** - [www.ycpc.org](http://www.ycpc.org)

- Meets 1st Tuesday at 7:30 p.m., except Wed. Nov. 1 at 7:30 and Tues. Dec. 1, 6:00 p.m., at 28 E. Market St., 2nd Floor.
- Contact YCPC at 717-771-9870 or [planner@ycpc.org](mailto:planner@ycpc.org)

**York County Solid Waste Authority** - <http://www.ycswa.org/>

- Contact YCSWA at 717-845-1066 or



## **WATERSHED EDUCATION & OUTREACH**

### **Trimming Back Lawn Fertilizer Pollution Podcast**

The Chesapeake Bay region has now reached the “clipping point,” where the nearly four million acres of lawns exceeds all the land devoted to corn, wheat, soybeans and other crops, according to a report by the Chesapeake Stormwater Network. “Bay Wise” gardeners ... are trimming back lawn fertilizer pollution by replacing their lawns with gardens of ferns, wild ginger and other plants native to the Chesapeake Bay Region. Chesapeake Stormwater Network Executive Director, Tom Schueler, discusses environmentally friendly techniques for maintaining a healthy and happy lawn on WYPR’s [The Environment in Focus with Tom Pelton](#).

Download: [Trimming Back Lawn Fertilizer Pollution \(.mp3\)](#)

### **Rain Gardens: Saving Streams One Yard at a Time**

Creating a rain garden offers therapeutic exercise, attracts wildlife, and helps keep stormwater runoff from overburdening sewer systems—or entering local streams. A rain garden is an attractive landscaped area planted with wildflowers and other vegetation (preferably native to the area) that has been designed to collect water that runs off a roof, driveway, or other parts of a property, including area lawns. Rain gardens are intended to fill with water during storms and slowly filter the water into the ground. Rain gardens are an economical way of dealing with rainfall the way nature intended by infiltrating, slowing down, and reducing the volume of runoff that enters a stormwater system. During heavy rains, they can prevent storm sewer overflows that can end up in our rivers and streams. Rain gardens not only keep rainwater on your property and out of the sewer system, they offer an attractive alternative to manicured lawns, adding beauty and value to a neighborhood. And, they provide important habitat for birds, butterflies, and other beneficial insects. Watch [Rain Gardens: Saving Streams One Yard at a Time](#)

### **Town of Berlin Approves Groundbreaking Stormwater Utility**

The town of Berlin passed historic legislation on January 28 that will help reduce flooding and clean up area rivers and streams. The new ordinance will create a stormwater utility for Berlin, dividing the cost of managing stormwater among the town's property owners and helping the town leverage federal and State grants for additional, related enhancements. The utility will generate \$570,000 annually for capital projects to help curb flooding, reduce erosion and polluted runoff, and combat property damage. Berlin decided to institute a utility in response to a University of Maryland Environmental Finance Center (EFC) [study](#) on how the town should best handle stormwater and flooding issues. Read more... [http://news.maryland.gov/dnr/2013/01/31/town-of-berlin-approves-groundbreaking-stormwater-utility/?utm\\_source=March+2013&utm\\_campaign=AccessDNR-March2013&utm\\_medium=email](http://news.maryland.gov/dnr/2013/01/31/town-of-berlin-approves-groundbreaking-stormwater-utility/?utm_source=March+2013&utm_campaign=AccessDNR-March2013&utm_medium=email)

### **Farmer support for extending Conservation Compliance**

*Journal of Soil and Water Conservation* – Conservation Compliance is at a critical juncture. Agricultural economic and budget factors have reduced the effectiveness of compliance incentives, and numerous groups are calling for enhancement of incentives and/or for extension of compliance beyond erosion control to cover concerns such as water quality impairment. This study analyzed survey data measuring Iowa farmers' support for four increasingly stringent Conservation Compliance scenarios ranging from the current configuration to a requirement that all farmers control nutrient runoff regardless of participation in farm bill programs. Read more... <http://www.iswconline.org/content/68/2/99.full.pdf+html>

### **Tell Congress: Please protect conservation programs that are critical to preserving the Bay!**

I have urgent news to share with you. We just learned about a new, serious threat to the Chesapeake Bay and its rivers and streams. Here's the gist: The House and Senate are working on the farm bill right now, looking for ways to cut funding. How does this affect the Bay? Critical conservation programs funded by the farm bill are likely to be first on the chopping block. An incredible 39 percent of nitrogen pollution in the Bay is due to agricultural runoff, contributing to large dead zones. Cutting funding for these programs would put all of our hard work to improve water quality in the Bay and local waterways at risk. We need to tell Congress that programs that improve the Bay's water quality are not expendable—they're absolutely necessary to saving the Bay for our children and grandchildren. [Click here to ensure Congress hears us loud and clear: Funding conservation programs is critical to preserving our Bay, its rivers and streams.](#)

### **U.S. EPA Considers Options for New Stormwater Rule**

According to the U.S. Environmental Protection Agency (EPA) Office of Water, EPA staff are currently completing cost and benefit studies and considering alternative regulatory approaches for the proposed national stormwater rule. EPA has yet to present options to senior management for final decisions. However, the agency still intends to publish the proposed rule by June 10, a court-imposed deadline. While EPA has officially stated that it has no current plans of asking the court for an extension, the process and remaining steps suggest that meeting the June 10 deadline may be problematic. Normally, there is a 90-day U.S. Office of Management and Budget review period after agency managers complete their work. One of the major questions still being debated internally is how to best address the need for retrofitting older urban areas. A national retrofit requirement significantly affects EPA cost estimates for compliance. A retrofit requirement could still be included in the proposed rule. However, another option is to address retrofitting through the total maximum daily load (TMDL) program. The reliance on the TMDL program for retrofitting is based on the fact that approximately 90% of urban areas discharge to waters impaired by stormwater flows, which requires them to incorporate TMDL goals into their National Pollutant Discharge Elimination System permit. Another major topic is the proposed redevelopment standard. A potential option for meeting this standard is through the development of a green infrastructure plan or program. This option may provide an opportunity for older communities, particularly those with combined sewer overflows, to propose green infrastructure alternatives, which may be part of an integrated planning framework. <http://stormwater.wef.org/2013/03/u-s-epa-still-considering-options-for-new-stormwater-rule/>

### **New Hands-on Activity, Watershed Decisions, Now Available From Penn State Extension**

A hands-on, inquiry based activity that helps older youth and adults learn about water quality issues surrounding small watersheds and the decision making processes that go into improving those water quality issues. Learn more... <http://ecosystems.psu.edu/youth/4-h-stream-teams/watershed-decisions>

### **Your Private Well: What Do the Results Mean? - Second Edition, 2012**

The goal of this booklet is to help educate and inform citizens on issues related to water conservation, ensuring that private water supply systems produce safe drinking water for your family, protecting the long-term quality of our streams and drinking water sources, and helping you to understand the potential sources of pollution to our water resources. The booklet provides general information explaining certified water testing, chain-of-custody, and drinking water regulations and standards. It provides information related to the health (primary standards) or aesthetic (secondary standards) concerns for each parameter and provides information on water quality parameters that do not specifically have a drinking water limit. This reference is intended as a guide to understand water quality by providing guidance on selecting water quality testing parameters for baseline testing from a citizen's perspective and by serving as a tool to help interpret water quality data. Read more... <http://www.water-research.net/privatewellownerbooklet.htm>





## WATERSHED FACILITATION ASSISTANCE

### **SAVE THE DATE! March 27, 2013 Climate Change Roundtable program in York**

The planet is warming up and wildlife all over the world are already feeling the effects. On March 27, we are holding a roundtable discussion in York PA (details below) with speakers who will give examples of wildlife are already being affected by climate change. During hot weather, we walk from our air conditioned homes to our air conditioned cars, to our air conditioned work places. Wildlife don't have that luxury. As a result, every plant, insect and animal that can move north or up in elevation is doing so. Come to the roundtable to hear how natural systems are being affected and what we can do to prevent the worst of the warming. SPEAKERS:

- Dr. Keith Peterman, Professor of Chemistry, Physical Sciences Department, York College of Pennsylvania
- Tom Smith, West Nile Virus Program Administrator, Penn State Cooperative Extension
- Paul Zeph, Director of Conservation at Audubon Pennsylvania
- Ed Perry, Pennsylvania Outreach Coordinator, National Wildlife Federation

Roundtable discussion about the impacts of a warming planet on natural resources. WHERE: Unitarian Universalist Congregation of York, 925 South George St., York PA. WHEN: March 27, 2013, 3:00 - 4:00pm. For information, contact Ed Perry, National Wildlife Federation, Climate Change Campaign, Phone - 814-880-9593 or [paglobalwarmingoutreach@gmail.com](mailto:paglobalwarmingoutreach@gmail.com).

### **Stormwater Treatment Train – Mar 27**

Wed., March 27th, 11 a.m. PST / 2 p.m. EST . Improve your stormwater management and water quality, and reduce your short and long-term costs...without grey infrastructure. Join [Steven Apfelbaum](#) to explore how to utilize ecological design principles and [Stormwater Treatment Train](#) concepts to effectively manage your stormwater and improve your water quality while also offering substantial short and long-term ecological, environmental, and economic benefits. In this webinar, Apfelbaum will discuss how by emulating natural systems in designing our stormwater management, we can reduce runoff peaks and volumes, improve water quality, improve community quality-of-life, and save money. Additionally, we'll explore the concepts of the Stormwater Treatment Train and how they can be used to address water quality, runoff hydrograph, runoff velocity, and hydrograph timing, as well as how to effectively implement stormwater treatment trains on your site.

We'll also discuss the economic, design, management, and quality-of-life issues involved with traditional engineered grey infrastructure, and how ecological design and Stormwater Treatment Train concepts offers a solution which is more effective, less costly, and sustainable, as well as creates open space and wildlife habitat opportunities, ultimately contributing positively to human quality-of-life opportunities and increased neighborhood aesthetics, economics, and market value. <http://www.foresteruniversity.net/webinar-stormwater-treatment-train.html>

### **Webinar- Financing Green Infrastructure – Mar 27**

11:30am. Join American Rivers' final webinar in a series, Benefitting from Green Infrastructure: A look at costs, funding and financing, for Chesapeake Bay communities funded in part with a grant from U.S. EPA Region 3, Maryland Department of Natural Resources and the Chesapeake Bay Trust. Financing Strategies for Green Infrastructure Programs cost reducing measures, revenue generating mechanisms, market-based programs, tools and resources. Presented by the University of Maryland's Environmental Finance Center

March 27, 2013, 11:30 AM-1:00 PM. Register: <http://gifinance.eventbrite.com> . View the prior webinars through these recording links:

Benefits of Green Infrastructure, American Rivers' presentation on valuing the multiple benefits of green infrastructure.

<http://americanrivers.adobeconnect.com/p9pjgjf85lw/>. Green Infrastructure Funding Programs, presented by: the Pennsylvania Infrastructure Investment Authority (PENNVEST), PA- Department of Conservation & Natural Resources and the Water Resources Education Network. <http://americanrivers.adobeconnect.com/p28i74ta41m/>

### **Trout Day March 30**

You are invited to a fun outdoor community event for the whole family! Hosted by United Water, "Trout Day" will be held opening day, Saturday, March 30th, along the banks of the Yellow Breeches at the United Water property on Limekiln and Slate Hill Roads. All refreshment donations benefit YBWA educational programs and events. The 2013 Trout Day Flyer is attached. Hope to see you there! Debbie Goetz, Yellow Breeches Watershed Association

### **Urban BMPS and the Bay TMDL Webcast – FREE! – Apr 3**

Join us for a half day of webcast training on April 3, 2013 on "Urban BMPS and the Bay TMDL: A Users Guide". This is an opportunity for you to learn about the Chesapeake Bay Program's Expert Panel recommendations for each of the newly approved Urban BMPs that can be used to achieve nutrient and sediment reductions toward the Bay TMDL. Hear from the expert panelists themselves and have the opportunity to ask them questions about each of the recommendations. Specifically you will get a chance to do the following:

- Understand the qualifying conditions for using the new BMP protocols and learn how to calculate load reductions associated with them
- Find out what the reporting , tracking and verification procedures are in order to claim the credit
- Hear from panelists on their perspectives for implementing the protocols and get the opportunity to get answers to your questions on the protocols.
- Hear about and provide feedback on the process for improving the methods going forward

This training is designed for local stormwater permit managers, design engineers, state TMDL staff, and anyone else involved in getting credit for urban practices in the Bay TMDL and outlines the expert panel recommendations for the four most recent Urban BMP Panels.

Webcast Instructions: Registration is not required to participate in the free webcasts. Simply mark your calendars and follow the instructions below: Virtual meeting room: [https://epa.connectsolutions.com/bay\\_accounting\\_webcast/](https://epa.connectsolutions.com/bay_accounting_webcast/). Join the room as a "guest," enter your first/last name and affiliation (if by yourself) or just affiliation (if participating as a group), followed by the number in your group e.g. "John Doe, University of Maryland" or just "University of Maryland", 5.

### **Making Great Trail Projects Happen – Apr 5**

A full-day seminar that will provide a variety of mini-sessions covering all aspects of trail planning. Held in conjunction with the [11th Annual Pennsylvania Land Conservation Conference](#) this seminar includes an overview of how the trail planning process can help organizations identify strategies for success, develop partnerships, organize trail groups, build community support and acquire funding. Participants will discuss tools and strategies for acquiring the access needed for trail projects. DCNR and PennDOT will share the latest trends and best practices as well as available resources. Several organizations will share their stories in developing successful trails, which include both first

time and seasoned trail developers. Participants will also participate in roundtable discussions focused on hot topics related to trail planning and development. [Click here](#) for more information or to register for the seminar

### **Watershed Arithmetic – Crediting & Counting Your Watershed Practices Towards TMDL Goals – Apr 17**

In the world of TMDLs and watershed plans with quantitative goals (e.g., X pounds of pollutants reduced), we tend to count what can be counted. The conundrum is that many practices we may undertake in a watershed are difficult to quantify, yet still worthwhile. How do watershed programs undertake the process to decide what to count and then quantify the benefits? This applies to structural practices, such as stormwater retrofits, as well as non-structural, such as watershed stewardship. There are also a host of practices for which benefits may be difficult to quantify, such as stream restoration, illicit discharge elimination, watershed forestry, and nutrient management. Learn from practitioners who manage these programs how to structure an equitable and science-based program for counting and crediting watershed and stormwater practices. This webcast is hosted in conjunction with the Chesapeake Stormwater Network (CSN). Tom Schueler and Cecilia Lane from the Chesapeake Stormwater Network will provide insights from the EPA BMP expert panels that they facilitate. These panels recommend practice efficiencies for jurisdictions to report, track, and verify pollutant load reduction for the Chesapeake Bay TMDL implementation. The webcast will also feature EPA Region 1, Newton Tedder and Kate Bowditch and Julie Wood from the Charles River Watershed Association in Massachusetts who will discuss the New England permits, TMDLs, and load reduction requirements. Their presentation will showcase newly developed tools to report structural and non-structural pollutant load reductions that help local government and watershed groups meet permit requirements. As an AWSPs member, you save \$60 off the full price of each webcast. Your savings exceeds the cost of an individual membership or even a first level group membership. Non member price = [\\$149 per webcast](#). Member price = \$89 per webcast. NEW! Special Member + Webcast Package [4 Webcasts plus Membership](#) = \$84 per webcast. Once you are a member, you will need the member discount code to get your savings. You can find the discount code in the [member login area](#) of the AWSPs website. April 17, 2013 (12-2pm EST)

### **Penn State's first statewide Private Forest Landowners Conference – May 10-11**

Please join us on May 10-11 at the Blair County Convention Center in Altoona, the event will be hosted by the College of Agricultural Sciences' Center for Private Forests. Focusing on the future of Penn's Woods, the day-and-a-half conference will reach out to owners of all sizes of woodlands, from backyard woodlot owners to those who view their woodlands as business ventures. Read more...

<http://ecosystems.psu.edu/research/centers/private-forests/events/2013-private-forest-landowners>

### **Upcoming courses at Environmental Concern - WOW, Rain Garden Design, Wetland Delineation, Rain Barrels and more!**

Join Environmental Concern for professional development opportunities at our Wetland Learning Center in St. Michaels, MD. We have courses for all levels - Community Members, Educators, and for Wetland Professionals.

- March 28, 2013 - Rain Garden and Bio-retention Design: This course introduces community members, landscapers, and others in the field to the concepts of how to plan, design and implement a rain garden or bio-retention area from start to finish. Participants will understand how rain garden and bio-retention areas benefit the environment by improving the watershed and how they can be used in urban planning and stormwater control on their properties. EDUCATOR/COMMUNITY LEVEL COURSE. Time: 9:00am-4:30pm Cost: Early Bird Rate \$85.00 (\$95.00 after March 7)
- April 6, 2013 - Rain Barrels Workshop: Create your own rain barrel to turn roof runoff into water for your garden. Save money and help the Bay. Materials will be available to make your own rain barrel to take home. \$15 course only, \$55 course and barrel. COMMUNITY LEVEL COURSE. Time: 10:00am-12:00pm Cost: \$15 course only; \$55 course and barrel
- April 29 - May 3, 2013- Basic Wetland Delineation: Students and professionals just entering the field of wetland science, as well as those needing a review, should attend this 4.5 day (36-hour) course on the 1987 Corps of Engineers wetland delineation method. The course covers the Clean Water Act Section 404 regulations, updated regulation changes, and individual wetland parameters of vegetation, soils, and hydrology. PROFESSIONAL LEVEL COURSE. Time: 8:30am-5:00pm Cost: Early Bird Rate \$950 (\$975 after April 8)

All courses will be held at Environmental Concern's Wetland Learning Center, 201 Boundary Lane, St. Michaels, MD 21663. For more information, or to register, visit [www.wetland.org](http://www.wetland.org) or call Environmental Concern at 410-745-9620.

### **Stormwater Management and Low Impact Development – May 29**

May 29, 2013; 8:30 am - 4:30 pm. Five Reasons To Attend This Seminar:

- You'll examine Pennsylvania's rules on stormwater management.
- You'll learn about low impact development site planning.
- You'll learn about infiltration and water quality issues.
- You'll learn about bioretention/rain gardens and green roofs.
- You'll review erosion and sediment control in LID.

This seminar is open to the public and offers up to 6.5 continuing education hours to architects and landscape architects (HSW), and 6.5 PDHs to professional engineers in most states, including Pennsylvania (LAs and PEs). This event also offers a non-mandatory continuing education opportunity to contractors. HalfMoon Education is an approved continuing education sponsor for architects in Florida and is deemed an approved architect and landscape architects continuing education sponsor in New York. HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Louisiana, Maryland, New Jersey, New York (NYSSED No. 35), North Carolina, and North Dakota. This seminar is approved by the American Institute of Architects for 6.5 HSW Learning Units (Sponsor No. J885; Course No. hms00013112) and the Landscape Architect Continuing Education System for 6.5 HSW PDHs. Courses approved by the AIA qualify for New Jersey architects. Tuition \$269.00 for one attendee, or \$249.00 for 3 or more from the same company or firm registering at the same time. Each registration includes one copy of a manual prepared by the seminar speakers. Registration begins 30 minutes prior to seminar. This event will be held at the Harrisburg East Holiday Inn, 4751 Lindle Road, Harrisburg, Pennsylvania 17111. Please call Harrisburg East Holiday Inn at (717) 939-7841 or HalfMoon Education Inc. at (715) 835-5900 for detailed directions. [Register for This Seminar](#). [Show Me Information on Purchasing a Recording of this Program](#)



## **WATERSHED FINANCIAL ASSISTANCE**

### **NOW ACCEPTING NEW PROJECTS – Capital RC&D Resource & Project Databases**

What is the Capital Region Project Inventory? The Capital RC&D Project Inventory is an online regional clearinghouse for projects seeking financial, material or volunteer support and is designed to be searchable by entities seeking projects to fund. Projects listed in the database include physical builds and conservation or community development capacity building. All projects must either impact or utilize natural resources in the South Central PA region and must be verifiable by agency or Capital RC&D staff. What is the Capital Region Resource Database? The Capital RC&D Resource Database is a searchable list of support programs available to landowners, agricultural producers, organizations, agencies, and businesses (both for and non-profit) in the South Central PA Region. Who will know about this resource? Capital RC&D staff and partner organizations will promote the database and listed projects and programs when collaborating and interacting with various agencies, organizations and businesses that impact the South Central PA region. How do I find and search the Project Inventory and Resource Database? Both resources are online and accessible through the Capital RC&D website <http://www.capitalrcd.org/>. Visit [www.capitalrcd.org](http://www.capitalrcd.org/) and from the home page select the "Need Resources" button. From the next page, select your choice of either the Project Inventory or Resource Database. Project Inventory and Resource Database searches can be refined by type and focus. Results are presented with a brief description and option to view additional details. How do I submit a new project or resource? From the Project Inventory search screen select the green "Submit a New Project" button. Before proceeding with entering the project, select the "Sponsoring Organization" drop down and ensure that the organization is included. If it is not included, please call Cheryl Burns with Capital RC&D at 717-241-4361 to have your organization added to the approved list. Once you find your organization, complete the form and submit for approval. If the project is not physical in nature, please indicate general status in the "Is this project shovel-ready?" section. Also, for multi-county or multi-municipality projects please indicate the county and municipality of the organization or agencies main address and note geographic scope in the description. Entities desiring to submit a program into the resource database should contact Cheryl Burns with Capital RC&D at 717-241-4361 for assistance.

### **NRCS Accepting Applications for Conservation Innovation Grants – Mar 22**

NRCS is now accepting application for Conservation Innovation Grants (CIG). CIG is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging federal investment in environmental enhancement and protection, in conjunction with agricultural production. Funds are awarded to non-federal government organization, tribes or individuals. For fiscal year 2013, NRCS is offering two CIG funding opportunities at the national and state levels. The national opportunity focuses in the following areas: Program Outreach Nutrient Management, Energy Conservation, Soil Health, Wildlife, Economics, Co-Management for Food Safety and CIG Projects Assessment. A webinar for potential applicants is available on Wednesday, March 6. The application period is open until March 22. For more information, [click here](#).

### **2013 Trout in the Classroom (TIC) Grants for the 2013-2014 school year being accepted – Mar 30**

The PA Trout Unlimited is now accepting applications for its [2013 Trout in the Classroom \(TIC\) Grants](#) for the 2013-2014 school year. Applications are due March 30. Trout in the Classroom is an interdisciplinary program in which students in grades third through twelfth learn about coldwater conservation while raising brook trout from eggs to fingerlings in a classroom aquarium. All classrooms end the year by releasing their trout into a state approved waterway. Pennsylvania's statewide TIC program is made possible through a unique partnership between PA Council of Trout Unlimited and the Fish and Boat Commission. For more information, contact [Samantha Kutskel](#) at 814-359-5233.

### **RFP–Outdoor Recreation, Parks and Other Green Environments: Understanding Human, Community Benefits, Mechanisms – Apr 11**

This multi-state research project sponsored by USDA will provide up to \$5.0 million over five years to a variety of projects related to green environments and human and community benefits. Examples of projects that are being sought include the following:

- Infrastructure that supports healthy lifestyle choices, such as increased pedestrian and bicycle transportation coordinators to schools.
- Citizen engagement with natural resources, including participation in environmental education, interpretation and conservation stewardship programs.
- Recreation planning decisions made with increased public engagement and related planning documents and policy.
- Recreation planning documents incorporating resilience, vibrancy and recreation.
- Increased understanding of the physical health benefits of recreation in parks and other green environments, particularly in relation to obesity.
- Increased understanding of outdoor recreation's role in larger socio-ecological systems in terms of its contribution to human health, environmental literacy and community vibrancy and resilience.

Proposals Due: April 11, 2013. <http://www07.grants.gov/search/search.do?&mode=VIEW&oppld=219773>

### **Henry A. Jordan M.D. Preservation Excellence Fund – May 1**

The fund provides grants for projects that revitalize the livability of the nation's communities. Eligible projects include those that facilitate positive dialogues between the diverse interests of historic preservation, land conservation, business development, transportation, and government. Grants range from \$2,500 to \$10,000 and require a dollar-for-dollar match. Proposals Due: May 1, 2013.

<http://www.preservationnation.org/resources/find-funding/special-funds/henry-a-jordan.html#UTV3eMpWKXc>

### **Hart Family Fund for Small Towns – May 5**

Grants are intended to encourage preservation at the local level by providing seed money for preservation projects in small towns. Only proposals from towns with populations of 5,000 or less are considered under this fund. Proposals Due: May 5, 2013.

<http://www.preservationnation.org/resources/find-funding/special-funds/#Hart>

### **Bikes Belong Community Partnership Grants – May 24**

The Bikes Belong Coalition welcomes grant applications from organizations and agencies within the United States that are committed to putting more people on bicycles more often. Fundable projects include paved bike paths, bike lanes, and rail-to-trails, as well as large-scale bicycle advocacy initiatives. Proposals Due: May 24, 2013. <http://www.bikesbelong.org/grants/apply-for-a-grant/who-can-apply/>

### **Stream Restoration Challenge Accepting Applications – May 30**

After selecting 29 proposals last August, the [Stream Restoration Challenge](#) is now accepting new applications through May 30 from local governments, school systems and non-governmental organizations looking to complete [water quality improvement projects](#). This program provides service learning and environmental literacy activities for students. Grants totaling up to \$6 million will be awarded to establish 1,000 acres of forested stream buffers by 2015.

### **Conservation and environmental protection grants for five programs under the Act 13 Marcellus Legacy Fund – Jul 31**

The Commonwealth Financing Authority is now accepting applications for conservation and environmental protection grants for five programs under the Act 13 Marcellus Legacy Fund. The new programs provide \$14 million in funding for greenways, trails, and recreation; watershed restoration and protection; water quality data; and orphan and abandoned well plugging programs. The Greenways, Trails, and Recreation Program provides grants for planning, acquisition, development, rehabilitation and repair of greenways, recreational trails, open space, parks and beautification projects. Program guidelines and requirements are available at [www.newpa.com](http://www.newpa.com). Applicants can begin applying immediately through DCED's electronic single application system. Applications will be accepted through July 31, 2013 for consideration at the November 13, 2013 CFA Meeting. For more information, contact Brian Eckert or Matthew Karnell at 717-787-6245 to discuss potential projects before commencing the application process. These funds are not eligible for matching funds to grants awarded through the DCNR Community Conservation Partnerships Program.

### **Ray C. Anderson Foundation Invites Letters of Inquiry for Environmental Grants Program**

The [Ray C. Anderson Foundation](#) is accepting Letters of Inquiry from nonprofit environmental organizations for initiatives that support environmental, economic, and social sustainability in the United States. Through its Gray Notes Grants program, the foundation awards grants of between \$2,000 and \$25,000 for environmental conservation, preservation, education, and restoration initiatives; urban agriculture programs; clean water and clean air projects; environmental and economic think tanks; and grassroots initiatives that inform and inspire people to collaborate and take positive action to protect the planet. In addition, the program supports organizations and programs that are working with industry, government, and businesses to create environmentally sound planning practices to reduce the environmental footprint of urban development through energy efficiency, increased use of renewable energy, and the reduction of carbon intensity. All organizations requesting funding must be recognized as tax-exempt under Section 501(c)(3) of the Internal Revenue Code. LOIs are accepted throughout the year and must be submitted through the foundation's [online grant inquiry system](#). Applicants will be notified if a full application is requested. Grants are awarded twice a year, in June and December. We award grants in two categories:

- Grants to Environmental Initiatives and Nonprofits Inquiries taken throughout 2013.
- Grants to Higher Education Research Programs (by invitation only). Inquiries due March 28, 2013.

See the Ray C. Anderson Foundation Web site for eligibility and application guidelines. <http://www.raycandersonfoundation.org/grants>



## **WATERSHED TECHNICAL ASSISTANCE**

### **The Costs of LID**

With fourth-generation municipal separate storm sewer system (MS4) permits in California now requiring use of low-impact-development (LID) stormwater best management practices (BMPs) for discretionary new and redevelopment projects, the need for accurate LID BMP cost data has never been greater. Indeed, for development project proponents and the regulated MS4s, the data are fundamental both for informing the LID BMP selection process through technical and economic feasibility analysis, and for creating the basis of an appropriate mitigation or in-lieu fee in instances where a project proponent cannot meet run-off retention requirements entirely using LID BMPs onsite. To address this need, the County of Orange, on behalf of the Orange County Stormwater Program, partnered with the Construction Industry Coalition on Water Quality (CICWQ) to develop estimates of the costs of incorporating different combinations of LID BMPs into several of the most commonly encountered Orange County development scenarios. The case studies examined four different development project scenarios ranging in size from a small urban mixed-use commercial retail and residential property with no parking provided (0.14 acre), up to a large "big-box" type commercial retail center on 12.4 acres. In three of the four scenarios, the percentage of impervious area assumed was 90%, with LID BMPs sited predominately within landscaping and parking areas. Five different LID BMPs were considered for application within the four hierarchical categories of LID BMPs: infiltration basins and concrete pavers, harvest and use cisterns, green roofs, and biofiltration systems. LID BMP total installation costs and O&M costs ranged from just over \$50,000 for an infiltration paver system serving the small urban mixed-use residential and commercial scenario (0.14 acre, 2,800-gallon DCV) up to \$4.7 million for a cistern and green roof combination serving the 12.4-acre big-box commercial project. To compare installation and O&M costs, data from all four case studies were normalized per square foot of contributing total impervious area (TIA), and per gallon of stormwater managed by the LID BMP. For all four case study scenarios, infiltration basins, infiltration pavers, or biofiltration systems are the least expensive LID BMP options to install and operate and maintain compared to cisterns and green roofs. Expressed per square foot of contributing TIA, installation and O&M costs are less than \$10, and when the urban case study is excluded, costs are generally less than \$3. On a per-gallon basis, the capital cost of installation and O&M is less than \$10 for all three types of BMPs, and when the urban example is excluded, cost drop to less than \$3 per gallon. Harvest and use systems and green roof systems cost at least twice as much to install as infiltration or biofiltration systems. Using cisterns to collect rooftop or surface runoff or both—either belowground or aboveground—is intermediate in capital cost among LID BMPs evaluated. The installation and O&M cost of cisterns ranges from \$2 to \$24 per square foot of TIA. On a per-gallon basis, cistern costs range from \$5 in a large commercial project to \$49 in an urban situation managing a low volume of runoff. BMP configurations that use a green roof as a hydrologic source control to manage a portion of the DCV are the most expensive BMP systems on a capital installation cost basis. Expressed per square foot of TIA, green roof costs range from \$10 to \$79 and range from more than \$20 up to \$130 per gallon. Unless a project is lot-line to lot-line, a green roof cannot manage the entire DCV alone compared to all other LID BMPs evaluated. Another way to express and compare costs among LID BMP types is by using the per-square-foot installation cost of the BMPs themselves. The case studies show that infiltration basin systems range in cost from \$19 to \$63 per square foot, infiltration pavers range in cost from \$8 to \$28 per square foot, biofiltration systems range in cost from \$29 to more than \$100 per square foot in urban applications, and green roofs range in cost from \$21 to \$61 per square foot. These costs do not reflect property value. Harvest and use systems are typically evaluated and compared volumetrically, so no per-square-foot installation and O&M costs were calculated. Read article... <http://d27vi430nutdmd.cloudfront.net/4264/144788/144788.14.pdf>



### **The Myth of Barriers to Remove Sediment From Runoff Waters**

Today, a multi-million-dollar industry provides a variety of products to meet EPA's mandate of installing construction site best management practices (BMPs) to minimize pollutants in the discharge of runoff waters. On any construction site, one will find numerous barriers to perform this task, including silt fence, straw bale, fiber roll, and geosynthetic structures around homes and inlets or in drainage channels. What is unknown is the effectiveness of barriers to remove sediment from runoff waters. One would like to believe that the installation of temporary sediment control BMPs would meet EPA's mandate. Unfortunately, what is overlooked is that even if the installation, inspection, and maintenance of barriers occur in an optimal manner, sediment (i.e., a pollutant) nearly always continues to discharge from construction sites during runoff events. The more effective BMPs that truly minimize pollutants in runoff waters are those that lessen their creation, such as erosion control practices. Unfortunately, because excavating earthen material, developing roads, building homes, and so forth cannot occur by implementing only erosion control practices, contractors have to rely upon temporary sediment control measures such as barriers. It is demonstrated in this article that structure height and width, hillside slope, flow length, and runoff are determining factors for barriers as to whether they provide sediment or erosion control of sheet flows. When maintenance and seepage issues are not a problem, then hillside barrier effectiveness requires assessing the maximum flow length necessary for total containment of runoff. Unfortunately, because maintenance and seepage issues are often major problems, hillside barriers are not effective in removing sediment from runoff waters—unless used in conjunction with mulch. When runoff encounters on-grade inlet barriers, downstream flooding and sedimentation are often problems. While sedimentation in front of sump inlets barriers gives an appearance they are effective, they are actually ineffective when large contributing areas of bare ground exist. However, the effectiveness of sump inlet barriers does increase as upstream stabilization practices occur. Lastly, the most effective sediment control BMP to implement on a construction site is a professionally designed SCS that accepts discharge waters from storm sewer systems. Once an effective SCS is implemented, the capture of runoff discharging unimpeded into on-grade inlets is feasible, which will result in a reduction of downstream flooding and sedimentation. Also, the use of an effective SCS negates the need for requiring the installation of most sump inlet barriers that cause localized flooding and sedimentation. Read article...

<http://d27vj430nutdmd.cloudfront.net/4264/144788/144788.14.pdf>

### **SKEETER SOLUTION - Pervious paver stops mosquitoes from colonizing in storm drain catch basins**

*STORM WATER SOLUTIONS (JANUARY/FEBRUARY 2013)* – The Washoe County (Nev.) Health Department's Vector-Borne Disease Prevention Program had a problem. Mosquitoes were colonizing in the standing water of storm drain catch basins, giving rise to the potential of a West Nile virus threat. The obvious solution would be to drill holes in the bottoms of the basins to allow water to drain into the subsurface, but according to National Pollutant Discharge Elimination System (NPDES) guidelines, that would be considered an injection well and is not allowed. In early winter 2009, Xeripave began working with Washoe County to develop a solution to the mosquito colonization problem. Xeripave proposed using its Super Pervious Pavers in various configurations to block the mosquitoes' access to the standing water while allowing storm water to flow through. The configuration chosen was a tray system, which is a shelf of pavers placed inside a storm drain inlet system, below the inlet grate and above the standing water in the sump. The concern that the pavers would become plugged was addressed with an overflow pipe using an internal butterfly valve. Read more... [http://editiondigital.net/display\\_article.php?id=1298328](http://editiondigital.net/display_article.php?id=1298328)

### **All the Way to the Bank – Stream restoration as a way to combat erosion**

The Illinois River, located in northeast Oklahoma, is one of the state's six scenic rivers. It provides tourists with floating, fishing and swimming experiences, and brings millions of tourism dollars to the local economy. In the last 30 to 40 years, however, the water quality has degraded as a result of increased development and changing land use in the watershed. Because this river is designated a scenic river, it enjoys special protections under Oklahoma law, including more stringent water quality standards than other state waters. The watershed has been the subject of lawsuits and interstate agreements, in part due to increased phosphorous in the river and the changing land use within its watershed. Pollutants enter the river through both point and nonpoint sources. The point sources are monitored, and technologies are available to help wastewater treatment plants and other point sources meet the river's water quality standards. Nonpoint sources, such as runoff from both rural and urban areas, are more difficult to identify and manage. Several programs have been established to help reduce nonpoint source pollutants, especially sediment, by reestablishing riparian areas, fencing cattle out of streams and requiring that construction site erosion control measures be installed. One issue that has not been addressed on a large scale in Oklahoma is bank erosion. Eroding banks not only add sediment to streams and reservoirs, but because phosphorous particles bind to soil, when that soil erodes into a stream, the phosphorous also enters the stream. To help address this bank erosion problem, the Oklahoma Conservation Commission (OCC) partnered with Oklahoma State University (OSU) to undertake an ambitious project to restore more than 6,500 ft of streambank, effectively reducing the amount of sediment in the system by more than 900 tons per year. OCC received \$2 million in American Recovery and Reinvestment Act (ARRA) funds through the Oklahoma Water Resources Board for the project. ARRA stipulated the project had to be completed no later than Sep. 30, 2012. Read more... [http://editiondigital.net/display\\_article.php?id=1298334](http://editiondigital.net/display_article.php?id=1298334).

### **Bioretention Hydrology of Parking Lot Bioretention Cell**

A recent paper on bioretention hydrologic performance provides reliable data on how runoff reduction actually works within test bioretention cells. This solid paper also provides technical support for many of the Level 1 and 2 design criteria that are being proposed in the Commonwealth of Virginia. Download: [Bioretention Hydrology \(.pdf\)](#)

### **Field Performance of Bioretention in Maryland**

This 2008 offering by Dr. Allan Davis at University of Maryland provides an excellent summary of the hydrologic performance of two test bioretention areas, based on monitoring of many storms. Overall, results indicate that bioretention can be effective for minimizing hydrologic impacts of development on surrounding water resources. Download: [Field Performance of Bioretention \(.pdf\)](#)

### **Mosquitoes and Bioswales**

It is generally believed that mosquito breeding will not take place in most BMP water ponds due to the expected drainage of 1-2 days. However, a report on mosquito breeding in bioswales in Delaware by the Dept of Entomology & Wildlife Ecology, University of Delaware, for DNREC offers some troubling data on potential mosquito production from these areas and some prevention techniques. Download: [Mosquitoes and Bioswales \(.pdf\)](#)

### **New Biological Assessment Program Review Document Available Online**

EPA has made available online the "Biological Assessment Program Review: Assessing Level of Technical Rigor to Support Water Quality Management," which provides a process for states and tribes to evaluate the technical rigor and breadth of capabilities of a biological assessment program. State and tribal water quality agencies face challenges to ensure that the best available science serves as the backbone of their monitoring and assessment programs. States and tribes can identify the technical capabilities and the limitations of their biological assessment programs and develop a plan to build on the program strengths and address the limitations. Biological assessment information is important to effectively and accurately answer water quality management questions about assessment of biological condition, protection of aquatic life, and tracking progress in restoration of degraded water bodies. To access the document, visit: [http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/biocriteria/technical\\_index.cfm](http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/biocriteria/technical_index.cfm)

### **Forest Landowners Guide to the Federal Income Tax Now Available Online**

The latest publication in the series of income tax handbooks for nonindustrial private forest owners, Forest Landowners Guide to the Federal Income Tax, is now available online. While the handbook does not provide guidance on establishing or managing forest stands, it fosters good forest management by combining relevant information for analyzing investments in forest management and an explanation of the federal income tax law associated with those investments. The handbook also contains new information on the disposition of depreciated property and like-kind exchanges. For more information, visit [timbertax.org](http://timbertax.org)

### **Penn State Students Tackle Community Revitalization Projects**

Penn State's Landscape Architect program offers an innovative course to help students engage community members in urban revitalization projects. Residents of inner-city neighborhoods work collaboratively with the students to address issues such as lack of green space, vacant lots and dilapidated buildings. The communities normally would not have the opportunity to work with landscape architects, but collaborating with the students is often a catalyst for the residents to take action in their neighborhoods. <http://www.psu.edu/feature/2013/02/08/urban-renewal-pittsburgh>

### **Improve your bottom line and the environment with 4r nutrient stewardship**

Today's farmers live in a world where environmental concerns and increased food demand create challenges never seen before. Meet those challenges with 4R Nutrient Stewardship by choosing the Right Nutrient Source to apply at the Right Rate in the Right Place at the Right Time. Read more... <http://www.nutrientstewardship.com/>

### **Urban BMP Cost Database Needs Your Data**

The Chesapeake Stormwater Network is creating an Urban BMP Cost database and we need your bioretention cost data. This very important project will allow us to determine the average cost of a bioretention facility, help us to understand different cost "inflaters" and "deflaters" as well as allow us to generate cost-predictive equations that local governments and designers can use to plan for and prioritize their stormwater practices. We Appreciate Your Input – We understand how busy you are but by taking a few minutes to fill out our quick and easy survey you can help us create something that is desperately needed for future planning. In return for your help, participants will receive a copy of the findings as well as formal acknowledgment in the final memo. Finally participants will be entered into a drawing for the following prizes: \$200 gift card to Home Depot. Grand Prize Winner will be rewarded with a free CSN training workshop on the topic of their choice! Fill out our survey here: <https://acrobat.com/#d=o1kcmpxQhI8JUzZuKDwl2Q>. We are looking to collect lots of data in order to generate the most accurate estimates. So please take a few minutes to fill out this quick and easy survey and be part of something important. Also feel free to pass this along to anyone you think would be able to help us. All collected information will be kept strictly confidential. Any questions about the Urban BMP Cost Database and the survey can be addressed to: [Cecilia Lane](mailto:Cecilia.Lane@csn.org).

### **Creating Green Roadways**

Roads don't have to be the enemy of sustainability, argues the author of this book. America is dependent on cars, and 30% of our roads and 25% of our bridges are decaying. We must find a practical way to create environmentally friendly, cost-effective, safe roadways that serve all types of transportation. Transportation infrastructure can improve quality of life for generations to come. An integrated and holistic approach can improve road systems, and natural, cultural, and visual elements can all be incorporated in good road design and planning. Learn more... [http://islandpress.org/ip/books/book/islandpress/C/bo8802436.html?utm\\_source=Sipes+eblast+27+Feb+2013&utm\\_campaign=Sipes+eblast+Feb+2013&utm\\_medium=email](http://islandpress.org/ip/books/book/islandpress/C/bo8802436.html?utm_source=Sipes+eblast+27+Feb+2013&utm_campaign=Sipes+eblast+Feb+2013&utm_medium=email)

### **Roller/crimper can help 'terminate' large cover crops**

*Southeast Farm Press* – Growers who use cover crops are increasingly turning to a tool that can flatten out their actively growing fields, usually in a single pass. Known as a "roller/crimper," the technology can help reduce and sometimes eliminate the need for herbicides and is ideal for organic farmers and growers interested in reducing herbicide use. Read more... <http://southeastfarmpress.com/vegetables/rollercrimper-can-help-terminate-large-cover-crops>

### **Report "Watershed Modeling to Assess the Sensitivity of Streamflow, Nutrient, and Sediment Loads to Urban Development"**

EPA recently released a draft report for independent external peer review and public comment that characterizes the sensitivity of streamflow, nutrients (nitrogen and phosphorus), and sediment loading in different regions of the nation to a range of mid-21st century climate change and urban development scenarios. Watershed modeling was conducted in 20 large, U.S. watersheds for this purpose. This draft report provides a summary of the simulation results that characterize the sensitivity of streamflow, nutrients, and sediment loading to the scenarios on climate change and urban development. The results provide an improved understanding of methodological challenges associated with integrating existing tools and datasets to address these scientific questions. This provides guidance for improving how existing models and datasets can be used for assessing climate change impacts on watersheds. For more information on the 45 day public comment period and to view the draft report, visit: <http://cfpub.epa.gov/ncea/global/recordisplay.cfm?deid=247495>.