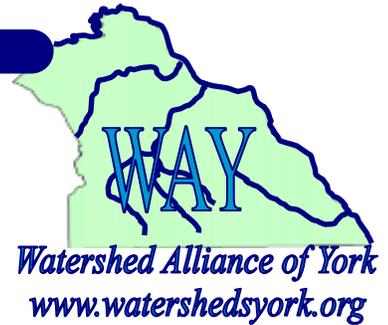


WAY E-NEWS

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



August 16, 2010

A PUBLIC-PRIVATE PARTNERSHIP

Volume 10, Issue 17

INSIDE THIS ISSUE...

WATERSHED ALLIANCE NEWS...2

WATERSHED EDUCATION & OUTREACH...Page 4

- EPA Announces Next Step Toward Establishing Rigorous Pollution Diet for Chesapeake Bay
- EPA Proposes Sediment Limits for Chesapeake Bay Pollution Diet
- EPA Issues New Guide to Improving Stormwater Management Local Streams, Bay to Benefit
- EPA Orders Four Municipalities in South Central Pennsylvania to Improve Stormwater Mgt
- PA eases up on stormwater rules, gives towns more time to develop plans to handle runoff
- USGS: Number Of Counties In Drought Watch Condition Grows To 20, 1 In Emergency
- Help Stop the Spread of the Invasive Zebra Mussel
- Emerald Ash Borer Quarantine Expanded to 43 Counties
- Audio: Natural Selections - Flood-plain forest restoration
- Stormwater.org
- State Water Plan Update
- York Students Featured In Chesapeake Bay Local Action Video Showcase
- iPhone App for Chesapeake Bay
- Unsung environmental heroes - random acts of green

WATERSHED FINANCIAL ASSISTANCE...Page 7

- Watershed Internship
- Joint Venture Highlights Woody Biomass Potential
- NOAA: Marine Debris – Nov 1
- NOAA: Open Rivers Initiative – Nov 17
- USDA's NRCS Grants to Protect Private Forest Land in Pennsylvania
- USDA – Healthy Forests Reserve Program (HFRP)
- Livable Communities Act Approved
- Aquatic Ecology Research Assistant Position University of Maryland Center

WATERSHED FACILITATION ASSISTANCE...Page 8

- EPA Listening Sessions on Potential Revisions to Water Quality Standards – Aug 24 & 26
- Nitrogen Management Field Day - Aug 26
- Nutrient Credit Trading Mock Auction – Aug 27
- CALL FOR PRESENTATIONS-WORKSHOPS-ROUNDTABLES-FIELD EXPERIENCES – Sep 10
- Water Quality and Karst Conference – Sep 16 & 17
- Practical, Hands-on Stormwater Infiltration & Retrofit Workshop – Sep 25
- York County Medication Clean-Up Campaign Event – Sep 25
- "Water and Energy Sustainability in Changing Climates" Symposium – Sep 26-29
- DOING OUR PART TO HELP RESTORE THE CHESAPEAKE BAY
- BRUNNER ISLAND Summer 2010 Environmental Programs
- HOLTWOOD Summer 2010 Environmental Programs

WATERSHED TECHNICAL ASSISTANCE...Page 10

- Impact of restoration activities on two branches of the Codorus Creek, York, PA
- NASA Satellite Improves Pollution Monitoring
- Straw Residue Helps Keep Nitrogen on the Farm
- Switchgrass Lessens Soil Nitrate Loss Into Waterways, Researchers Find
- Hops Helps Reduce Ammonia Produced by Cattle
- EPA's Watershed Academy's 51st Webcast: "Re-Visioning Landscapes with LID"
- Climate Ready Water Utilities Toolbox
- FSA Releases CRP Interim Rule
- Ecosystem Management and Restoration Research Program (EMRRP) Publications

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
- Director SCRO 717-705-4704
- 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

GAME & 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 8/17/2010

WATERSHED ALLIANCE NEWS

[Ag Land Preservation Board of York County - www.york-county.org](http://www.york-county.org)

<> For information about farmland preservation in York County contact Patty McCandless at pmccandless@york-county.org or call 717-840-7400.

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

- Sep 30 – Into the Streets – Northern York County Illegal Dump Site Cleanups. Details to be announced.
- <> Contact: Deana Weaver at (717) 432-2211 or admin@carrollcitizens.com

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

- CCWA on Facebook! We are now on Facebook, with over 75 members, and growing each day! If you are a Facebook member, please join us by clicking on the following link below to visit the page <http://www.facebook.com/group.php?gid=118546314839244&ref=ts>
 - Oct 11 – CCWA Meeting of Members and Board, 7:00 pm, at York Water Co. (Mt. Rose Ave.)
- <> Contact: Jim Leaman at 843-2929

[Codorus State Park - www.dcnr.state.pa.gov](http://www.dcnr.state.pa.gov)

[Conewago Canoe Club - www.conewagocanoecub.org](http://www.conewagocanoecub.org)

- Sep. 2 – Club Meeting – Mount Zion United Church of Christ, 7:00 pm, at Ridgewood Road in Pleasureville
 - Red Lion High School Paddling Instruction Schedule online
- <> Questions or comments e-mail me oc1mike@comcast.net, but remember you catch more flies with honey than vinegar.

[Deer Creek Watershed Association - http://deercreekwatershed.com/](http://deercreekwatershed.com/)

- NEW! Check out our new website
- <> Contact Lee McDaniel at ldmcdaniel@aol.com.

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

<> Contact: Sean Kenny at Farm & Natural Lands Trust of York County • 156 North George Street • Suite 300 • York, PA 17401 • Phone (717) 843-4411 • Fax (717) 854-7452 or skenny@farmtrust.org

[Friends of Codorus State Park - www.friends-of-codorus.org/](http://www.friends-of-codorus.org/)

<> For more information contact Becky Miller at 632-6747 or email beckymill1@juno.com or Dave Carbaugh at 637-9875 or email carbaugh3@embarqmail.com

[Gifford Pinchot State Park - 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/Gifford Pinchot State Park, 2200 Rosstown Road, Lewisberry, PA 17339. Phone: 717-432-5011

[Greater Hanover Alliance - pwingert@legacycaps.com](mailto:pwingert@legacycaps.com)

<> Contact: G. Paige Wingert, President, Greater Hanover Alliance, Inc., Hanover, PA 17331. Ph : (717) 630-0892.

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

<> TO VOLUNTEER OR REGISTER FOR FREE or for more information contact Peggy Perry, Program Director for Gunpowder Valley Conservancy at 410-668-0118 or email little-owl@msn.com.

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

- Looking for something fun to do later this summer? Why not come out to the Farm? Join us on Saturday, August 7, from 11-5
- <> Contact: Horn Farm Center for Agricultural Education, 4945 Horn Road, York, PA 17406. Phone: (717)654-0571. Email: info@hornfarmcenter.org. Web: www.hornfarmcenter.org.

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

- Calendar of events 2010 - www.yorkchapter67iwla.org/id21.html
 - Club Open Meetings are held the Third Tuesday of each month at 7pm in the Clubhouse.
- <> Contact: York Chapter #67 IWLA, 7131 Ironstone Hill Road, Dallastown, PA 17313. Club Grounds Phone: 717-428-2000 *Leave a message for the Committee Contact or Club Officer you are trying to reach. Committee Contacts & Club Officers are listed on the Club Information Page. If no phone or email address is listed contact club grounds phone number.

[Lower Susquehanna Riverkeeper - 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.

[Maryland's Upper West Shore Trib Team - http://www.dnr.state.md.us/bay/tribstrat/upper_west/up_west_shore.html](http://www.dnr.state.md.us/bay/tribstrat/upper_west/up_west_shore.html)

- As you know, we are in the process of developing the Phase I Watershed Implementation Plan (WIP) which will provide the reasonable assurance for meeting the Total Maximum Daily Load to be established by EPA by the end of this year. That Plan will require us to determine the nutrient and sediment loading gaps we will need to meet and outline the programs, actions, policies and commitments to meet that gap. We are looking for any suggestions you may have to close the gap and move us toward meeting Maryland's nutrient

reduction goals. We have developed an on-line "suggestion box" to solicit these gap closer ideas. We would like your help in both providing ideas for gap closers and distributing the link for the Suggestion Box tool to your friends and organizations. The tool will remain open throughout the development for both the Phase I and Phase II WIPs. Phase II WIPs will be more detailed plans developed at the county geographic scale and will be due by the end of 2011. More information about the TMDL and the WIPs can be found on the MDE web site http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/cb_tmdl/index.asp. The link for the GAP Closer Suggestion Box is <http://www.surveymonkey.com/s/NZCWHGZ>

<> Contact: Mike Bilek, Tributary Team Coordinator, MD DNR, Tawes Office Building, Annapolis, MD 21401. Ph: 410-260-8988. E-mail: mbilek@dnr.state.md.us

Mason-Dixon Trail System, Inc. - <http://www.masondixontrail.org/>

<> Contact: James Hooper at 717/252-3784 or j.e.hooper@ieee.org

Mid-Atlantic Ecological Landscapes Partnership [MAEscapes] - www.maescapes.org

- Sep 11 – Fall Native Plant Sale & Demonstration Garden Open House 9:00 am to 2:00 pm
 - Oct 25 – MAEscapes Advisory Board meeting at ANNEX, 6:30 pm
- <> Contact: 717-840-7408 or Connie Schmotzer at cxs51@psu.edu

Peach Bottom Concerned Citizens Group Inc. - www.pbccg.com

<> Contact Maria Payan by email 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 - www.prettyboywatershed.org

- Reservoir Forest Management Study - This is a long-term cooperative research program being conducted by the Maryland Department of Natural Resources Forest Service (MD-DNR Forest Service) and the City of Baltimore (DPW). The project is first being tested on a small scale in order to see if it will result in a healthy and increasingly diverse native forest. The goal of the project is to create and maintain a healthy forest for long-term watershed protection through comprehensive, ecosystem-based management. Six study sites, comprising a total area of 21 acres, were chosen at Liberty and Prettyboy Watersheds, by foresters from the MD-DNR Forest Service. In each site, trees will be thinned in order to allow more light to reach the forest floor and stimulate new growth. High quality, mature trees will be left in order to provide seed for repopulation. In addition, invasive species will be treated to allow for native plant regeneration and eight-foot tall deer-proof fencing will be erected to prevent damage from grazing by white-tailed deer. Data will be collected annually by City of Baltimore Reservoir Natural Resources Section staff to evaluate tree regeneration for the next three years. The trees you may see being removed are only being removed for the purpose of the study.
- <> Contact: Nancy Shaper at nshaper@jhmi.edu

Sierra Club – Gov. Pinchot Group of PA - <http://pennsylvania.sierraclub.org/pinchot/>

- New 2010 Meeting Location! Monthly meetings will be held the last Tuesday of the each month at 6:30 pm in the Community Room at the Giant at 2300 Lingleston Rd, Harrisburg, PA 17110. All members are welcome!
 - 8/28 - Green Belt Bike Ride
 - 9/25 - Susquehanna River Clean-up
 - 10/24 - Highway Clean-Up
 - Green Drinks - 5:30 pm happy hour on the second Wednesday of every month at a local pub. For Green Drinks locations click [here](#) or on Twitter @HBGreenIrene, or on [Facebook](#)
 - Inner City Outings (ICO) - find out [more](#) about this great local Sierra Club program
- <> Kim Anderson at sgfornyc@aol.com.

Spoutwood Farm Center for Sustainable Living - www.spoutwood.com

- You are Cordially Invited to participate in the 6th Annual MEHF – Sunday, Oct 3, 2010 at Spoutwood Farm, Glen Rock, PA. (45 minutes from Baltimore, Harrisburg, Lancaster, Gettysburg). A Family FunFilled Celebration. A Showcase of All Aspects of Healthy Living in the Mid-Atlantic Region. An Old-Fashioned Modern Country Fair in its 6th Year. A Coming Together for a Hope-filled Locally-based Future. How to: Fill out an application available online and send to the address above. Fee: FREE for non-profits, others: \$50.
- <> Contact Rob & Lucy Woods at Spoutwood Farm at 717-235-6610 or spoutwood@comcast.net.

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

<> Contact Mark Platts, Susquehanna Heritage Corporation, 1706 Long Level Road, Wrightsville, PA 17368. Office: 717-252-0229. E-mail: info@lyhr.org.

Susquehanna Greenway Partnership - www.susquehannagreenway.org

<> For more information about the Susquehanna Greenway, please contact: The Susquehanna Greenway Partnership, 201 Furnace Road, Lewisburg, PA 17837. Phone: 570-522-7211. Email: greenway@susquehannagreenway.org

Trout Unlimited Codorus Chapter #558 - www.codorustu.org

- Sep 8 – Monthly Chapter Meetings 2nd Wednesday, 7:00 p.m., at Sawmill pavilion (summer)
- <> Contact: Tom Finenze at 840-1372 or tom@codorustu.org. Cancellations due to winter weather will be announced here, and on WSBA Radio, 910 AM.

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

Aug 18 – Chapter Meeting at [Collinsville Fish & Game](#)

<> Contact: Ron Heuston, President MCTU, 244-1851 or Heuy1955@aol.com

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

- The Watershed Alliance of Adams County holds its board meeting monthly. Board meeting dates have changed to the fourth Tuesday of the month. All board meetings are held at the Adams County Agricultural and Natural Resources Center at 4:30pm unless otherwise specified. The public is invited to attend.
- <> Contact: Michelle Kirk 717-677-4628 or email at: mkirk@adamswatersheds.org

Watershed Alliance of York – www.watershedsyork.org

- Oct. 6 – Meeting of WAY Board of Directors, 7:00 PM, at 324 W. Market St., York, PA.
 - COMMUNITY CLEANUPS – WAY to help coordinate and finance your community's illegal dump cleanup.
 - COMMUNITY EVENTS – Got a community event planned for 2010 that you would like WAY to exhibit its display? Contact us.
 - SPEAKERS BUREAU – Need a speaker for your event? Contact WAY's speakers bureau composed of local experts in watershed-based planning, restoration and planning.
 - 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.
 - You can make www.goodsearch.com and be sure to enter WAY as the charity you want to support.
- <> 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

Yellow Breeches Watershed Association – www.ybwa.org

- Sep 8 – YBWA Board Meeting
 - Oct – TBA - Annual Membership Meeting
 - Dec 8 – YBWA Board Meeting
- <> Contact: John Eby, President, at john_eby@lower-allen.pa.us

York-Adams Regional Smart Growth Coalition – www.yorkadamssmartgrowth.org

- <> Contact Shanna M. Wiest, Government Affairs Director, REALTORS Association of York & Adams Counties, Inc. 901 Smile Way York, PA 17404. Phone: (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 tls35@psu.edu.

York County Conservation Alliance - www.yorkcountyconservationalliance.org

- <> Contact: Jane Heller at info@yorkcountyconservationalliance.org or 717-845-3797, or mail to YCCA - 543 Dupont Ave, York, Pa. 17403

York County Conservation District – www.yorkccd.org

- Board meets 2nd Friday, 11:30 a.m. (December-March) and 2nd Thursday, 7:00 p.m. (Apr.-Nov.), at the York County ANNEX
 - Rain barrels for sale! Visit our website for more information and prices.
- <> Contact: YCCD at 717-840-7430 or yorkccd@yorkccd.org

York County Planning Commission – 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



WATERSHED EDUCATION & OUTREACH

EPA Announces Next Step Toward Establishing Rigorous Pollution Diet for Chesapeake Bay

On July 1, EPA announced draft allocations for nitrogen and phosphorus as part of a rigorous pollution diet for meeting water quality standards in the Chesapeake Bay and its tidal tributaries, and restoring local rivers and streams throughout the 64,000-square-mile watershed. EPA proposed watershed-wide limits of 187.4 million pounds of nitrogen and 12.5 million pounds of phosphorus annually, and divided those allocations among the six watershed states and the District of Columbia, as well as the major river basins. EPA will assign draft allocations for sediment August 15. In addition, EPA is committing to reducing air deposition of nitrogen to the tidal waters of the Chesapeake Bay to 15.7 million pounds per year. The reductions will be achieved through implementation of federal air regulations over the coming years. The jurisdictions are expected to use the allocations as the basis for completing Watershed Implementation Plans, detailing how they will further divide these allocations among pollution sources, and achieve the required reductions. The jurisdictions are expected to have all practices in place to meet the established limits by 2025, with 60 percent of the effort completed by 2017. EPA plans to issue a draft Total Maximum Daily Load (TMDL) or pollution diet for a 45-day public comment period on September 24. The final Phase 1 Watershed Implementation Plans are due November 29, and EPA will establish the Bay TMDL by December 31. In 2017, the jurisdictions are expected to submit updated implementation plans to ensure that all the control measures needed to meet Bay water quality standards will be in place by 2025.

EPA Proposes Sediment Limits for Chesapeake Bay Pollution Diet

(PHILADELPHIA - August 13, 2010) EPA today announced draft sediment limits as the next step in establishing the Watershed Implementation Plans (WIPs) for the Chesapeake Bay Total Maximum Daily Load (TMDL). The TMDL is a rigorous pollution diet for meeting the water quality standards in the Chesapeake Bay and its tidal tributaries, and restoring local rivers and streams throughout the 64,000-square-mile watershed. The six watershed states and the District of Columbia are expected to use the limits, along with those previously issued for nitrogen and phosphorus, as the basis for completing WIPs detailing how they will further divide these limits among pollution sources, and what practices will be implemented to meet water quality standards. An EPA analysis indicates the likelihood that measures to control and reduce nutrient pollution as outlined in these WIPs will also significantly reduce sediment runoff, achieving the annual sediment limits. Too much sediment in the water is a major problem impairing the Chesapeake Bay. Excess floating clay and silt particles cause clouding of the water, and blocking sunlight from reaching underwater grasses. These underwater grasses can't grow without sunlight, and die, harming young fish, blue crabs and other aquatic life needing bay grasses for shelter to survive. Underwater grasses are also a critical food source for many of the Bay's key waterfowl species. The first drafts of the WIPs are due to EPA by September 1. On September 24, EPA plans to issue a draft TMDL and open a 45-day public comment period, including 18 public meetings. The final WIPs are due November 29, and EPA will establish the final Bay TMDL by December 31. For more information about the Chesapeake Bay TMDL visit:

<http://www.epa.gov/chesapeakebaytmdl/>

EPA Issues New Guide to Improving Stormwater Management Local Streams, Chesapeake Bay to Benefit

(PHILADELPHIA - Aug. 3, 2010) The U.S. Environmental Protection Agency today issued a new guide for improving the effectiveness of urban stormwater permits in the Chesapeake Bay watershed and the mid-Atlantic Region. The permits are issued by the states and EPA to local municipalities and other permit holders to control water pollution from runoff. The guide is being issued under President Obama's Executive Order for Protecting and Restoring the Chesapeake Bay Watershed, Urbanized areas contain large portions of impervious surfaces such as roads, rooftops and parking lots that channel stormwater directly into local streams, rivers, and other water bodies. Improperly managed stormwater runoff from urbanized areas can damage streams, cause significant erosion, and carry excessive nutrients, sediment, toxic metals, volatile organic compounds, and other pollutants downstream. By evaluating the effectiveness of dozens of stormwater permits, EPA identified several areas needing clarification. In EPA's mid-Atlantic Region, the reissuance of stormwater permits has been delayed due in part to lack of clarity and consistency on what is expected across state boundaries. The evaluations found that many municipalities' stormwater management plans are out of date and have not been fully implemented, and permits don't always contain clear milestones for assessing progress or ensuring that water quality standards for local streams and water bodies would be met. The guide calls for: Municipal storm sewer system permits to address 11 elements for enhancing consistency and effectiveness including: post construction performance standards; accounting for discharges from federal facilities; reducing turf grass fertilizer; retrofitting to reduce existing discharges; clear accountability mechanisms; implementing limitations to meet water quality standards and local waterways and Bay pollution budgets (TMDLs); and clear and enforceable action milestones. States submitting plans and schedules by September 15 to eliminate the current permitting backlog as soon as possible. The plans will include target dates for consulting with EPA and for proposing and finalizing all permits. A similar plan for enhancing field presence, and compliance with permits. By September 15, states must also submit an inspection and audit plan identifying strategies for enhancing inspections, compliance evaluations and audits, and insuring adequate enforcement criteria are in place. State evaluations to determine if previously unregulated sources should be required to obtain stormwater permits. To get more information about stormwater management visit <http://cfpub.epa.gov/npdes/stormwater/munic.cfm>.

EPA Orders Four Municipalities in South Central Pennsylvania to Improve Stormwater Management - Benefits Local Streams; Chesapeake Bay-

(PHILADELPHIA - August 6, 2010) The U.S. Environmental Protection Agency today announced it has sent orders to four south central Pennsylvania municipalities requiring improvements to their respective Municipal Separate Storm Sewer System (MS4) programs. Orders went to Silver Spring Township of Lancaster County; Lower Allen Township, Cumberland County, and Wyomissing Borough and West Reading Borough in Berks County. EPA issued similar orders last April to 79 other municipalities in this south central part of the state, an area that drains to the Chesapeake Bay. The orders require the cited municipalities to correct problems with their respective MS4 programs and come into compliance with their Clean Water Act permit. In order to comply with their permit, municipalities are required to develop stormwater management programs to control pollutants from entering their drainage systems, which include storm drains, pipes, and ditches, designed to collect and convey stormwater runoff. Urbanized areas contain large portions of impervious surfaces such as roads, rooftops and parking lots that channel stormwater directly into local streams, rivers, and other water bodies. Improperly managed stormwater runoff from urbanized areas can damage streams, cause significant erosion, and carry excessive nutrients, sediment, toxic metals, volatile organic compounds, and other pollutants downstream. EPA continues to perform on-the-ground MS4 inspections of municipalities throughout Pennsylvania and other mid-Atlantic states for compliance with existing permit provisions. The Pennsylvania Department of Environmental Protection is in the process of completing a 5-year renewal of the MS4 general permit which is scheduled to be completed in the latter half of 2011. For more information about MS4s visit <http://cfpub.epa.gov/npdes/stormwater/munic.cfm>

PA eases up on stormwater rules, gives towns more time to develop plans to handle runoff

After months of trying to impose tough new rules for how towns should manage their storm water, Pennsylvania regulators on Tuesday backed off and granted municipalities a nine-month extension for measures some had termed "draconian." Towns were to have submitted plans by Sept. 10 detailing how they would comply with new rules to handle the gushers of rain that often flow through culverts directly into streams, carrying with them road oil, fertilizer, trash, and other pollutants. But anxious local officials pushed back, calling it an unfunded mandate and worse. The way they read an initial ordinance floated earlier this year, they would be forced to spend millions of dollars sweeping salt off roads after storms, installing storm-sewer retrofits, and even requiring residents to submit storm-water plans for patios. The state Department of Environmental Protection originally resisted an extension. But in an interview Tuesday (July 27), John Hines, the department's deputy secretary for water management, said that one would be granted after all. He said he expected a formal announcement by mid-August. "We have heard their concerns," Hines said. "But in this extension period, we all have a lot of work to do, and we need to do it together."

USGS: Number Of Counties In Drought Watch Condition Grows To 20, 1 In Emergency

The USGS [Pennsylvania Water Science Center](#) this week reported the number of counties in drought watch condition doubled from 10 to 20 in the last two weeks, according to the Palmer Drought Severity Index. One county-- Carbon-- is in drought emergency condition for

groundwater sources. The Department of Environmental Protection is the agency charged with officially declaring a drought watch or emergency and no drought watches, warnings or emergencies have been declared. The counties with drought watch conditions include: Bedford, Blair, Bradford, Cambria, Cameron, Centre, Clearfield, Clinton, Elk, Fulton, Huntingdon, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Tioga, Wayne and Wyoming. One county– Carbon– is in drought emergency condition for [groundwater sources](#). Eight counties are in groundwater drought warning condition: Bradford, Fayette, Lawrence, Mercer, Monroe, Lackawanna, Pike and Somerset counties. These counties are in groundwater drought watch condition: Centre, Columbia, Luzerne, Mifflin, Montour, Sullivan, Union, Wayne and Wyoming counties. One county– Bradford– is in drought warning status for [surface water sources](#). These counties are in surface water drought watch condition: Adams, Carbon, Centre, Columbia, Lackawanna, Luzerne, Mercer, Mifflin, Monroe, Montour, Pike, Snyder, Sullivan, Tioga and Union. For current drought conditions, visit the USGS [Pennsylvania Water Science Center](#) webpage. Visit DEP's [Drought webpage](#) for official drought declarations.

Help Stop the Spread of the Invasive Zebra Mussel

DNR biologists recently spotted several adult zebra mussels for the first time in the lower Susquehanna River below the Conowingo Dam, indicating that a population of this non-native, invasive mussel is established in this part of the Susquehanna. For more information and ways to help stop the spread of this invasive species, click here <http://www.dnr.state.md.us/dnrnews/pressrelease2010/071510c.asp>.

Emerald Ash Borer Quarantine Expanded to 43 Counties

Forty-three counties are now under a quarantine that is intended to prevent the spread of the invasive, tree-killing Emerald Ash Borer, Agriculture Secretary Russell C. Redding said today while reminding travelers not to haul firewood between counties. Redding also said that the pest has been found in two additional counties. Beetles were found in Cumberland County at the Pennsylvania Turnpike mile marker 226 near Carlisle, and in Union County at the intersection of State Gameland and Matthew Brown roads in Gregg Township. The Emerald Ash Borer has now been found in 17 counties: Allegheny, Armstrong, Beaver, Bedford, Butler, Centre, Cumberland, Fulton, Indiana, Juniata, Lawrence, Mercer, Mifflin, Somerset, Union, Washington and Westmoreland. The Agriculture Department has expanded its quarantine to include 31 counties, including the six where the beetle has been found this year and others that are contiguous. Those counties are: Blair, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Columbia, Crawford, Cumberland, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Jefferson, Lycoming, McKean, Montour, Northumberland, Perry, Potter, Snyder, Somerset, Tioga, Union, Venango and Warren. The quarantine is intended to restrict the movement of ash nursery, green lumber, and any other ash material, including logs, stumps, roots and branches, from the quarantine area. Because it is difficult to distinguish between species of hardwood firewood, all hardwood firewood and wood chips—including ash, oak, maple and hickory—are considered quarantined. Redding said Emerald Ash Borer poses a serious threat to Pennsylvania's nation-leading hardwoods industry, which contributes nearly \$25 billion to the economy. People who suspect they have seen Emerald Ash Borer should call the department's toll-free pest hotline at 1-866-253-7189. For more information about the quarantine, contact Walt Blosser at 717-772-5205, and for more information about Emerald Ash Borer, contact Sven-Erik Spichiger at 717-772-5229. Information is also available at www.agriculture.state.pa.us by searching "Emerald Ash Borer."

Audio: Natural Selections - Flood-plain forest restoration

Trying to put nature back the way we found it can be more complicated than just leaving things alone. Dr. Curt Stager talks with Martha Foley about attempts to restore "green tree reservoirs," flood-plain forests that have been reduced 80 percent in size by human encroachment. Listen: <http://www.spokenword.org/program/1189376>

Stormwater.org

It's been a busy year for water quality advocates, what with the impending changes to PA's Chapter 102 regs and MS4 Phase II Permits; debates about the pros and pitfalls of gas drilling in the Marcellus Shale becoming regular news; TMDLs coming down the pike; more DEP cutbacks; revisions to the PA StormwaterBMP Manual under discussion, and much, much more...On the upside, there are plenty of great conservation and restoration projects hitting the ground and a multitude of conferences and workshops have been taking place, sharing the latest thoughts and techniques on managing stormwater as a resource instead of a waste. We've been feverishly working with partners on some exciting new tools that offer a new way of looking at the Site Design Process, help MS4s manage and report on their SWMP implementation efforts, and show "green infrastructure" in action. We've highlighted a few examples below, but to get the complete story, you know where to find us: www.stormwaterpa.org

State Water Plan Update

This is to let you know that DEP's State Water Plan Website has a listing of "Water Related Partners". To see this list go to: <http://www.pawaterplan.dep.state.pa.us/StateWaterPlan/PartnerOrganizations/PartnerOrganizationView.aspx>. Click on "Display all Partners" to see the list. If you do not see your organization on this list and would like to have it added, please supply me with information in the categories of: Name; Description; Location; Contact; Watershed. Contact Diane Wilson, Chief, Watershed Support Section, Department of Environmental Protection, Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA 17101. Phone: 717.787.3730. Fax: 717.787.9549. Web www.depweb.state.pa.us.

York Students Featured In Chesapeake Bay Local Action Video Showcase

"What are you doing to help the Chesapeake Bay on a local level?" That's the question 15 groups from the Chesapeake Bay watershed's six states and the District of Columbia answered for their local political leaders through the Chesapeake Bay Program's first-ever [Local Action Video Showcase](#) this spring. The videos showed citizens across the watershed working to do their part to restore the Bay. From river cleanups and rain garden plantings to best management practices and living shorelines, all of these groups are pitching in to help protect the Bay and their local rivers. Students in York were one of the 15 groups showcased. York High students worked with [Stewards of the Lower Susquehanna](#) and York Audubon volunteers to improve the Willis Run Living Classroom in downtown York. This stretch of stream just above the Kiwanis Lake Important Bird Area provides additional habitat and feeding opportunities for the Night Herons and Great Egrets, while creating an educational area for students and the citizens of York. The groups' projects were showcased at the Chesapeake Executive Council meeting on June 3 in Baltimore. [Click here](#) to watch the York video. Visit the [Local Action Video Showcase](#) webpage to see all the entries.

iPhone App for Chesapeake Bay

The Chesapeake Bay Trust has created a Chesapeake Bay Field Guide with photos and information about the birds, mammals, reptiles, amphibians, butterflies, trees, and seashore creatures you'll find around the Bay. The Field Guide is an iPhone app and also runs in iTunes. Click here for details http://www.thebaynet.com/news/index.cfm/fa/viewstory/story_ID/18651.

Unsung environmental heroes - random acts of green

(Green Living Tips.com) – When a movie star goes green, it makes headlines. The green movement also has its share of home-grown heroes; people you see mentioned each week on environmentally themed sites. It's great stuff as it inspires many people. What inspires me more is bearing witness to what would appear to be "random acts of green" by ordinary folks. On a recent trip out into the bush, it was a windy, cold morning with intermittent drizzle. Niki the Wonder Dog and I were comfortable enough in our heated mini-van buzzing along the highway just outside of the city when in the distance; I saw a car on the side of the road. I slowed down thinking that perhaps someone needed assistance. Out of the gloom emerged a lonely figure; an elderly gentleman with a bag who appeared to be just picking up rubbish along the side of the road.. and no, he wasn't just picking up cans and bottles for the deposit cash. He wasn't wearing a Greenpeace T-shirt, there was no environmental group name stencilled on his car and he certainly didn't have the media in tow. In fact, there was nothing to indicate he was a "greenie" at all aside from what he was doing - he just seemed to be someone doing his bit for the environment. I'll never know his name, but to me he's an environmental hero. He made me stop and think about why I couldn't do something like that from time to time; a random act of green-ness - to spend 5 or 10 minutes each trip cleaning up a section of roadside; or perhaps where I stop to have my break. It's the sort of thing we can all do. These random acts don't have to entail you being chilled to the bone and trudging along a muddy road. It could be picking up some litter in the park or at the beach while you are there, turning off a light at work in a room not being used - just something spontaneous and "outside" your own usual green focus. Just imagine, if every adult in the USA performed one random act of green a day, over a year that would amount to over 84 billion actions. That's a lot of litter collected or lights turned off. As I've so often mentioned, [simple green actions do work](#). For those of you who do regularly practice random acts of green - it is noticed and it does inspire. Like the better known green celebrities and activists; you are heroes too.



WATERSHED FINANCIAL ASSISTANCE

Watershed Internship

The Office of Surface Mining within the U.S. Department of the Interior will assist watershed groups by providing funds to hire interns to work on specific projects. The project must clearly enhance the sustainability of the watershed organizations and contribute directly to the remediation of acid mine drainage. Private nonprofit institutions, public nonprofit organizations, and established watershed organizations in the following States are eligible to participate: Alabama, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia and West Virginia. Undergraduate and graduate students, throughout the United States, interested in helping to clean up the environment are also eligible. The closing date for applications is September 30, 2010. FirstGov:

<http://www.grants.gov/search/search.do;jsessionid=DFh1L8BLPwnOVILvBBzXGsTQIL1hMhzwWO1MqMTPqP1jc6OqTmbD!-1885924289?oppld=52558&mode=VIEW>

Joint Venture Highlights Woody Biomass Potential

The USDA Forest Service and the U.S. Endowment for Forestry and Communities have developed a joint venture, designed to advance sustainable uses of woody biomass. Each organization has committed a minimum of \$2 million to the first phase of their partnership. Woody biomass includes small-diameter and low-value wood residue such as tree limbs, tops, needles and bark that are often byproducts of forest management activities. Innovative uses for such biomass can help offset expensive thinning operations and enhance the health and resilience of forest ecosystems. Funded projects, to be announced, will ensure certain woody biomass technologies and processes a place in the volatile energy industry, while maintaining the value of working forests and family-supporting jobs. Funded partners include private companies, conservation organizations and research institutions who provide at least a 50 percent local match, extending the reach of the initiative to more than \$6 million. For more information, please visit www.usendowment.org.

NOAA: Marine Debris – Nov 1

This funding opportunity is now open. See below for information on how to apply. Through NOAA's Marine Debris Program, the NOAA Restoration Center administers the Community-based Marine Debris Prevention and Removal Grants Program. This funding supports locally driven, community-based marine debris prevention and removal projects that benefit coastal habitat, waterways, and wildlife including migratory fish. <http://www.habitat.noaa.gov/funding/marinedebris.html> Closes November 1, 2010

NOAA: Open Rivers Initiative – Nov 17

Through its Open Rivers Initiative, NOAA's Restoration Center provides technical expertise and financial assistance to remove dams and barriers and restore habitat for the many species that migrate between the ocean and the nation's freshwater rivers and streams. This initiative contributes to sustainability of U.S. fisheries, provides an economic boost for communities, and improves public safety. <http://www.habitat.noaa.gov/funding/ori.html>- Closes November 17, 2010

USDA's NRCS Grants to Protect Private Forest Land in Pennsylvania

The USDA's Natural Resource Conservation Service (NRCS) is providing grants in Adams, Adams, Armstrong, Beaver, Bedford, Berks, Blair, Cambria, Centre, Huntingdon, Mifflin, Snyder and York Counties to protect Pennsylvania's forest land through the Healthy Forests Reserve Program (HFRP). The HFRP grants will be focused on protecting and improving critical habitat for the Indiana bat (*Myotis sodalists*), a federally listed endangered species. Applications will be accepted on a continuous basis until funding is exhausted.

<http://www.pa.nrcs.usda.gov/programs/HFRP/index.html>

USDA – Healthy Forests Reserve Program (HFRP)

The U.S. Dept. of Agriculture's Natural Resources Conservation Service (NRCS) is providing funds to protect forested land preferred by the Indiana bat, which is a federally listed endangered species. Funding will go to projects in 12 Pennsylvania counties that protect and improve critical habitat. Applications will be accepted continuously until the available \$1.1 million is exhausted. For more information, visit <http://www.pa.nrcs.usda.gov/programs/HFRP/index.html>.

Livable Communities Act Approved

Last week, the U.S. Senate Banking, Housing and Urban Affairs Committee approved S. 1619, the Livable Communities Act of 2009. The bill, introduced by Senator Chris Dodd (D- Conn), would establish an interagency council on sustainable development. The council would carry out the Obama administration's livability philosophy, offering grants to communities that engage in smart growth planning. The bill targets projects that create better places to live and work by improving the coordination between housing, community development, transportation, energy and environmental policies. The Livable Communities Act would authorize grants for projects involving community improvement and development, including \$475 million in competitive planning grants over four years. An additional \$2.2 billion will be awarded to implementation grants over three years. Congressman Ed Perlmutter (D- Colo.) introduced a companion bill, H.R. 4690, but hearings are yet to be scheduled.

Aquatic Ecology Research Assistant Position University of Maryland Center for Environmental Science Chesapeake Biological Laboratory

The University of Maryland Center for Environmental Science, Chesapeake Biological Laboratory, is looking to recruit a full-time Research Assistant to assist in water quality monitoring program evaluating the effectiveness of stream restoration at reducing loads of pollutants transported to the Chesapeake Bay. Responsibilities include field work in streams around Anne Arundel County, MD, and lab work in the Chesapeake Biological Lab (Solomons, MD) as well as: data analysis and laboratory maintenance; coordination of biweekly water quality sampling; storm flow sampling on an event basis using automated samplers; maintenance and use of hydrological equipment; processing and analyzing water samples in the laboratory for measurements of carbon, nitrogen, phosphorus, and suspended solids. MS or BS degree in aquatic sciences, hydrology, biology, or environmental science required. Must be able to perform and be comfortable working under variable weather conditions in the field. QA/QC protocols and computer databases, Proficiency in PC-based computing (GIS), are desirable. Occasional evenings, early mornings, and weekends may be required. This position is contingent upon continued grant funding. A comprehensive benefit package may be available. Please provide a letter describing prior related work experience, CV and contact information for two references to: Dr. Solange Filoso, filoso@umces.edu, UMCES/CBL, P.O. Box 38, Solomons, MD 20688. Information available at: <http://cbl.umces.edu>



WATERSHED FACILITATION ASSISTANCE

EPA To Hold Listening Sessions on Potential Revisions to Water Quality Standards Regulation – Aug 24 & 26

The U.S. Environmental Protection Agency (EPA) will hold two public listening sessions on potential changes to the water quality standards regulation before proposing a national rule. The current regulation, which has been in place since 1983, governs how states and authorized tribes adopt standards needed under the Clean Water Act to protect the quality of their rivers, streams, lakes, and estuaries. Potential revisions include strengthening protection for water bodies with water quality that already exceeds or meet the interim goals of the Clean Water Act; ensuring that standards reflect a continued commitment to these goals wherever attainable; improving transparency of regulatory decisions; and strengthening federal oversight. Water quality standards are the foundation of the water quality-based approach to pollution control, including Total Maximum Daily Loads and National Pollutant Discharge Elimination System permits. Standards are also a fundamental component of watershed management. The public listening sessions will be held via audio teleconferences on August 24 and 26, 2010, from 1 p.m. to 2:30 p.m. EDT. At the sessions, EPA will provide a review of the current regulation and a summary of the revisions the agency is considering. Clarifying questions and brief oral comments (three minutes or less) from the public will be accepted at the sessions, as time permits. EPA will consider the comments received as it develops the proposed rulemaking. EPA will also hold separate listening sessions for state, tribal and local governments. EPA expects to publish the proposed revisions to the water quality standards regulation in summer 2011. More information: <http://www.epa.gov/waterscience/standards/rules/wqs/>

Nitrogen Management Field Day - Aug 26

Thursday, August 26th, 9:00 – 11:30 AM at Penn State SE Research & Extension Center 1446 Auction Road, Manheim, PA . Hosted by: Lancaster Cooperative Extension Service and the Bay Farms Project Agenda: View Nitrogen application timing and rate corn plots; See demo of new shallow manure incorporation technology; and Discuss Nitrogen management tools and tips for your farm including the stalk N test and others. Speakers: Dr. Doug Beegle, Penn State; Dr. Greg Binford, Univ of Del.; and Jeff Graybill, Lancaster Extension. There is no cost for this field day, reservations are not required, but appreciated. CONTACT: Lancaster Coop. Extension Service: Jeff Graybill (717) 394-6851 or e-mail: jgraybill@psu.edu

Nutrient Credit Trading Mock Auction – Aug 27

The PA Infrastructure Investment Authority and the Department of Environmental Protection will hold a mock auction for nutrient credit trades on August 27 as part of their initiative to jump-start the credit trading market. DEP also plans a live meeting of interested parties on August 18 to field questions about the mock auction and how individuals can participate. As part of the nutrient credit trading initiative, PennVEST and DEP have created a Nutrient Credit Clearinghouse within the Chesapeake Bay Watershed in Pennsylvania. The purpose of the Clearinghouse is to facilitate the trading of both nitrogen and phosphorous nutrient reduction credits in both the Susquehanna and Potomac watersheds. An important, but not the only, mechanism through which PennVEST will facilitate these trades will be the conducting of periodic nutrient credit auctions. Questions should be directed to: Paul Marchetti, PennVEST, 717-783-4496 or send email to: pmarchetti@state.pa.us; Ann Roda, DEP, by sending email to: annsmith@state.pa.us or call 717-787-4726; or Jeff O'Hara, Chicago Climate Exchange by sending email to: johara@chicagoclimateexchange.com or call 312-229-5136. More specific background documents and details, visit DEP's [Nutrient Credit Trading](#) webpage.

CALL FOR PRESENTATIONS-WORKSHOPS-ROUNDTABLES-FIELD EXPERIENCES – Sep 10

The Maryland Association for Environmental and Outdoor Education presents its 26th Annual Conference "Educating for Sustainability", February 10-13, 2011, UMUC Marriott Inn and Conference Center - College Park, MD. DEADLINE FOR SUBMISSIONS: September 10, 2010

Water Quality and Karst Conference – Sep 16 & 17

Where can you join with nationally recognized experts to discuss water quality and land use issues on environmentally sensitive lands, find out the latest on Marcellus Shale drilling and groundwater concerns, and learn the current information on remediation regulations and techniques? The place is Growing Communities on Karst 2010 and the Great Valley Water Resources Science Forum at NCTC September 16-17. Register today at the new low price of just \$25 for two days. (Flyer attached.) Special field trip on September 15, just \$15 - canoe rental included. Participate in a real-time dye tracing exercise and GPS data collection: a must-have skill for watershed associations. More information and draft agenda attached. Commercial exhibit space available. For more information, contact Potomac Headwaters RC&D 304-267-8953 ext. 113.

Save This Date & Time! Practical, Hands-on Stormwater Infiltration & Retrofit Workshop – Sep 25

September 25, 8:30 am – Noon Save This Date & Time! What? Practical, Hands-on Stormwater Infiltration & Retrofit Workshop. How? Brief Talks; Answers to Questions on Planning & Implementation from Experienced Professionals; Inspection of Nearby Demonstration Site. Whom: Home & Property Owners, Garden Enthusiasts, Buffer Practitioners, Municipal Staff, Watershed Rehabilitation People, & Others. Where: Susquehanna Township, Harrisburg, PA Area. Sponsors: Dauphin County Conservation District, Paxton Creek Watershed & Education Association, Susquehanna River Basin Commission, and Others. Registration Forms, Information Brochure, and Detailed Information Available on Websites and Mailings (Electronic and Post) by Mid-August. Early Bird Information, Now? www.paxtoncreek.org

York County Medication Clean-Up Campaign Event – Sep 25

As our nation continues to face serious chronic and community issues, we believe the country must invest in its children, its health, its neighbors and its future. Local and across the county and country, our organization is going to make a difference in the areas of safety and responsibility with unwanted medications in homes. GIANT FOOD STORES AND THE AWARENESS GROUP OF HANOVER IS GOING TO HELP CUSTOMERS PROPERLY DISPOSE OF UNWANTED MEDICATIONS. Medication collection and disposal drive scheduled for September 25, 2010. GIANT Food Stores, in partnership with The Awareness Group of Hanover, Penn Township Police Department and the Pennsylvania State Police, will offer a medication collection and disposal drive on Saturday, September 25 from 10 a.m. – 2 p.m. at its Hanover store located at 801 Baltimore Street. The purpose of this program is to provide Hanover and other towns area residents with a means to dispose of unwanted prescription and over-the-counter medicines in an environmentally-safe manner. The Awareness Group of Hanover is underwriting the costs associated with the proper disposal of medications. Benefits From the Event:

- Unwanted medicines accumulating in the household present a public safety hazard;
- Diverting medicines from the toilet or trash can decrease the environmental pollution from wastewater treatment discharge and unlined solid waste landfills;
- Collections help educate the general public about the environmental impact of improper medicine disposal;
- A collection program provides the opportunity to inventory unused drugs and can yield wastage data that could prove valuable to physicians in better managing their prescribing practices.

Customers should keep medication in its original container with original labels still affixed. Personal information (i.e. names and addresses) should be crossed out, but information about the medication should be legible. No thermometers or medical waste will be accepted. All medications will be destroyed. Customers will not receive refunds. I ask that you that you would help distribute this flier and make communities aware of this event and hope to you see there! For more information, contact Martha L. King, Board of Directors, The Awareness Group of Hanover, P.O. Box 702, Hanover, Pa. 17331.

Groundwater Protection Council "Water and Energy Sustainability Symposium: Water and Energy in Changing Climates" – Sep 26-29

The Groundwater Protection Council (GWPC) will host the Water and Energy Sustainability Symposium: Water and Energy in Changing Climates on September 26 - 29, 2010 in Pittsburgh, PA. A host of radical changes has brought both water and energy management to the brink of crisis. Political, economic, and technological climates have undergone as much transformation as the natural climate. The ever-growing population and the increasing demands of that population on water and energy resources are adding to the challenge. Now, more than ever, water and energy planners need to share and learn from each other and from experts in their professional communities. Leaders from government, energy and water industries, academia, water organizations, and others will discuss the complex relationship between water and energy and pave the way for working together to deliver fresh water and clean energy that we can afford and sustain. Visit <http://waterenergy2010.com/>

DOING OUR PART TO HELP RESTORE THE CHESAPEAKE BAY

YORK, PA. – The Watershed Alliance of York is hosting the 8th Annual Watershed Weekend – Connecting People to Their Watersheds! The purpose of the Watershed Weekend is to increase public awareness about the importance of watersheds to local community health, growth and development, and quality of life and the Chesapeake Bay. Watershed Weekend is Saturday and Sunday September 25th and 26th, 2010, rain or shine from 9:00 a.m. to 4:00 p.m., daily. A total of 22 venues are scheduled and they are located in the watersheds of the Yellow Breeches Creek, Conewago Creek (West), Codorus Creek, and Kreutz-Muddy Creek, of York County, Pennsylvania. For a complete listing of Watershed Weekend venues, including venue descriptions, directions, and maps, visit our web site www.watershedsyork.org. Our free Watershed Weekend Tour Guide will be available online for downloading beginning September 1st. The Watershed Alliance of York (WAY) is a coalition of stakeholders committed to encouraging watershed-based planning, restoration and protection, through locally led initiatives, in York County and beyond.

- MAEscapes Native Plant Sale & Open House 9/11, 9:00-12:00
- Alliance Chesapeake Bay Tree Vitalize Workshop 9/11, 9:00-12:00
- MAEscapes Introduction to Mid-Atlantic Ecological Landscapes Class 9/14, 6:30-8:00
- New Freedom Heritage New Freedom Fest 9/18, 10:00-5:00
- Gardener of Owl Valley Pawpaw Tasting Event 9/18 & 19, 12:00-4:30

- York County Parks & Rec – Wallace Cross Mill Art at the Mill 9/25, 10:00-4:30
- PPL Brunner Island Hibiscus Area Cleanup 9/25, 9:00-12:00
- YCCD York County Envirothon Sporting Clays Fundraiser 9/25, 8:00-12:00
- Sylva Native Nursery & Ecosystem Recovery Inst. Piedmont Center for Environmental Stewardship Open House 9/25, 10:00-3:00
- Muddy Creek TU Eastern Brook Trout Nursery Open House 9/25, 10:00-2:00
- The Awareness Group of Hanover Medication Collection & Disposal Event 9/25, 10:00-2:00
- Codorus Creek Watershed Association Illegal Dump Site Cleanup (TBA) 9/25, 9:00-12:00
- York County Parks & Rec – Nixon Park Soil Beneath Your Feet Hike 9/26, 2:30-4:00
- Gifford Pinchot State Park Pontoon Boat Tour of Pinchot Lake 9/26, 10:30 & 1:30
- WAY Good Housekeeping & Pollution Prevention Workshop 9/28, 10:00 & 1:00
- MAEscapes Landscape Design with Native Plants Class 9/28, 6:30-8:00
- Farm & Natural Lands Trust of York County 2nd Annual Downtown Hoedown 9/30, 5:30-8:30
- Carroll Citizens for Sensible Growth Illegal Dump Site (Berky Road, East Berlin) Cleanup 9/30, 10:00-2:00
- Windsor Twp. & RLMA Your Water, Your Decision Informational Forum 9/30, 5:30-6:30
- NBFC-BSA & WAY Environmental Science for Scouts 10/2, 9:00-3:00
- Spoutwood Farm CSA & Sustainable Living Inst. Mother Earth Harvest Fair Celebration of Sustainable Living 10/3, 10:00-6:00
- MAEscapes The Influence of Native Plants on Our Watersheds Class 10/5, 7:00-8:30

BRUNNER ISLAND Summer 2010 Environmental Programs

DATE	PROGRAM	LOCATION*	TIME
Fri., Aug. 20	Hibiscus Walk	H-B *	9-11 a.m.
Sat., Sept. 18	Monarch Tagging	BIW	10 a.m. to noon
Sat., Sept. 25	Watershed Cleanup	H-B	9 a.m. to noon

*Location Code: BIW – Brunner Island Wetlands H-B – Hibiscus Natural Area/Boat Ramp

HOLTWOOD Summer 2010 Environmental Programs

DATE	PROGRAM	LOCATION*	TIME
Sat., Aug. 21	Paws, Claws, Scales & Tails	PCG	2-3 p.m.
Sun., Aug. 22	KTA Training Hike #2: Pequea Creek Campground to Norman Wood Bridge	PCG	10 a.m.
Wed., Aug. 25	Edible Plants	HEC	7-8:30 p.m.
Sat., Sept. 11	Susquehanna Super Hike & Ultra Trail Run	PCG	7 a.m. - 7 p.m.
Friday., Oct. 8	PA Hunter/Trapper Education Course **Independent study required prior to classroom testing**	HEC	6:30-9:30 p.m.

* Location Code: HEC – Holtwood Environmental Center L 12 – Lock 12 Historical Area PCG – Pequea Creek Campground

For more information, please visit our Web site at www.pplpreserves.com. Call 1-800-354-8383 or e-mail pplpreserves@pplweb.com. For more information on the current river conditions, call the Lower Susquehanna Hot Line at 1-800-692-6328. additional program details can be found on the Calendar of Events at www.pplpreserves.com

SAVE THE DATE 2nd Annual Choose Clean Water – Chesapeake Bay Restoration Conference – Jan 10-12

January 10-12, 2011 – Park Hyatt Washington Hotel, Washington, DC. We are excited to announce the second annual Choose Clean Water – Chesapeake Bay Restoration Conference to be held January 10-12, 2011 at the Park Hyatt Washington Hotel. Building on the success of our [2010 conference](#), this event will bring together leaders from across the region with non-governmental organizations, the philanthropic community, and green businesses to discuss the policy strategies necessary to restore the hundreds of streams and rivers that flow into the Chesapeake Bay. Registration opens in mid-September. Stay tuned for information about workshops, sessions, speakers, and more! If you would like to sponsor the conference, please go to www.choosecleanwater.org/cms/sponsorship.



WATERSHED TECHNICAL ASSISTANCE

Impact of restoration activities on two branches of the Codorus Creek, York, PA: Preliminary changes

W. Joseph Meisenbach¹, Izmir Akhmedov², and Katherine H. Baker². (1) Penn State Harrisburg, (2) Penn State Harrisburg. It is important to determine how urban streams can affect larger waterways, like the Chesapeake Bay, where pollution from upstream sources cause problems in downstream water quality and aquatic habitats. Primary pollutants of concern include nutrients (nitrogen and phosphorus) and sediments, especially in an area with mill dams and legacy sediments. These are associated with the changing of stream macroinvertebrate communities from pollution-sensitive species to pollution-tolerant ones. Stream restoration work, such as bank stabilization and the removal of mill dams, is routinely being employed to attempt to correct the environmental impacts of changes in land use and to reestablish pre-development stream conditions. However, little in-depth monitoring data is available to determine any improvements after the installation of restoration practices. Nine sites on two branches of the Codorus Creek (East and South) have been monitored for stream health through biological and chemical metrics - nutrients, suspended solids (SS), periphyton, and macroinvertebrates. The sites included locations upstream (reference), at (project) and downstream (impaired) of areas where stream restoration currently is in progress. There were no significant differences in the

concentrations of nitrogen, phosphorus, and suspended solids among the sites. This may reflect the continued influence of legacy sediments on downstream water quality or the impact of continuing agricultural activity in locations close to the stream. The large variability in nutrient and sediment concentrations at all of the sites, however, makes it difficult to draw firm conclusions regarding long-term trends in the chemical characteristics of the sites associated with restoration. Results/Conclusions: Periphyton biomass (chlorophyll a) was higher at the restoration and impaired sites than at the reference sites. This may reflect the influence of nutrients introduced via legacy sediments although the influence of upstream nutrients originating from current agricultural activity cannot be discounted. Macroinvertebrate diversity did not change significantly at the upstream reference sites over the course of this study. Sites where stream restoration had been completed, however, showed an increase in macroinvertebrate diversity compared to the same sites before restoration. At these sites there was an increase in the proportion of pollution-sensitive (e.g. Ephemeroptera) organisms relative to pollution-tolerant organisms. This indicates a preliminary biotic response consistent with successful stream restoration to pre-impacted conditions

NASA Satellite Improves Pollution Monitoring

ScienceDaily (July 27, 2010) – NASA scientists improved watershed pollution monitoring models by incorporating satellite and ground-based observations of precipitation. The NASA data replaces weather station observations, and will allow states to monitor non-point pollution and improve water quality. The research team incorporated two NASA products into a computer program in BASINS (Better Assessment Science Integrating Nonpoint Sources) that calculates streamflow rates and pollution concentrations. The current model uses meteorological data from weather stations, which can miss precipitation events and cause errors in modeling water quality. With better precipitation data, scientists will be able to obtain better estimates of the amount of pollution a body of water can carry before it is determined to be "polluted." The study revealed that both NASA products dramatically improved water quality model performance over the default weather stations. Both systems improved model performance but neither one was consistently better than the other. The NASA data systems were better able to capture the effects of water flow during storm periods that occur frequently in the summer months. This is due to the seamless coverage of the datasets as opposed to a single weather station that cannot represent all precipitation events in a given watershed. The two data products that were selected for this study are the NASA-modified North American Land Data Assimilation System (NLDAS) 1/8th degree precipitation and the Stage IV 4-kilometer dataset developed by the NOAA River Forecast Center Multisensor Precipitation Estimator. The results from the study were reported in the July-August 2010 issue of the Journal of Environmental Quality, published by the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America. The researchers selected seven watersheds within the Chesapeake Bay drainage basin to test the NASA-modified products. They were selected based on their dispersed locations within the drainage basin, an absence of reservoirs or diversions, and the presence of water quality data. Each watershed was also selected based on whether it represented a specific topographic and land cover/land use, so that the study could be conducted within a range of elevations and land cover types to understand how these variations affect the results. Although states may also monitor water quality with in-stream measuring and sampling, some states lack the resources to assess and protect water bodies with monitoring data alone. Models are a practical solution by taking into account the response of streams to storm runoff and pollution. NASA is currently working with Aqua Terra Consultants, the Goddard Earth Sciences Data and Information Services Center, and the EPA to incorporate precipitation data access within the BASINS model, providing users with an alternative dataset. This will be especially valuable for data sparse areas and in cases where the nearest weather station is many kilometers outside of the watershed. In time, this could also expand the potential use of BASINS to parts of the world without good meteorological data. This study was funded by the NASA Applied Sciences Program.

Straw Residue Helps Keep Nitrogen on the Farm

ScienceDaily (July 26, 2010) – Scientists are exploring ways to reduce non-point pollution from agriculture. A new study finds that using straw residue in conjunction with legume cover crops reduces leaching of nitrogen into waterways, but may lower economic return. Agriculture is the largest source of nitrogen non-point pollution to waterways in the United States, flowing into streams and rivers via erosion from farmlands, or through leaching of nitrate into groundwater. Once in aquatic systems, excess nitrogen leads to aquatic ecosystem degradation, including oxygen deprivation that leads to fish kills and dead zones. If nitrates leach into drinking water supplies, they are a human health concern and have been linked to blue-baby syndrome, various cancers, and birth defects. Legume cover crops, such as hairy vetch, have been considered as an alternative or supplement to synthetic nitrogen fertilizers that may improve the sustainability of agricultural systems. Such cover crops can contribute substantial amounts of nitrogen to subsequent crops, as well protect soils from erosion and promote overall soil quality. Legumes tend to release nitrogen more slowly than synthetic fertilizers, possibly being more synchronous with crop demand. That does not mean that nitrogen from legumes cannot be lost from the system. One way to possibly minimize these losses may be to add more carbon to nitrogen-rich residues, such as those of cereal grain crops, during cover crop phase of the cropping systems. A research study conducted at Penn State evaluated the potential for straw residue to retain legume-derived nitrogen in a corn cropping system. The study revealed that adding straw residues to hairy vetch cover crops tended to lower soil inorganic nitrogen compared to treatments with strictly legume residues. On average, across sampling dates, soil inorganic nitrogen was 7.3% lower in the treatments with straw residue retention. In this study, three different quantities of straw residue were spread on research plots that were later planted with hairy vetch. A corn grain crop was later no-till planted into the vetch/straw residues. The type of residue present affected not only the magnitude of the peak of nitrogen in soil but also the timing of this peak, which is important when considering the synchrony of nitrogen availability to corn nitrogen demand. However, the reduced availability of nitrogen in the soil also negatively impacted corn grain yields, which in one year of the study fell 16% below the county average. The straw residue left on the field is often sold, contributing to the economic value of the overall grain crop. The study did not show that using the straw residue to help retain nitrogen would offset this loss of income from harvesting the straw. The scientific study concluded that partial retention of small grain residues prior to a hairy vetch cover crop can reduce legume nitrogen losses, but may result in reduced crop yields in some years. Further research is needed to help better predict legume nitrogen availability and how to best integrate legume cover crops with synthetic fertility management systems. Results from this study are reported in the May/June 2010 issue of the Agronomy Journal, a publication of the American Society of Agronomy

Switchgrass Lessens Soil Nitrate Loss Into Waterways, Researchers Find

ScienceDaily (Aug. 12, 2010) – By planting switchgrass and using certain agronomic practices, farmers can significantly reduce the amount of nitrogen and nitrates that leach into the soil, according to Iowa State University research. The research is funded by the Iowa Department of Agriculture and Land Stewardship and Iowa State's Leopold Center for Sustainable Agriculture. They found that certain practices can minimize the amount of nitrogen and nitrates that leach from the field into the drainage tiles. The research compared fields that were planted with

continuous corn while harvesting just the grain; continuous corn taking the grain and stover; and planting continuous corn taking all possible biomass from the fields. Half of those fields were treated with fertilizer and the other half with manure. Other fields tested systems that rotate corn and soybeans, and others looked at switchgrass plots that received nitrogen fertilizer. The results showed that fields planted in continuous corn and treated with fertilizer had the most amount of nitrates leach below the crop root zone into the tile system. The fields with the least amount of nitrates that leached through the soil were planted in switchgrass and treated with fertilizer or manure. While switchgrass allows less nitrogen to leach into the soil, farmers need reason plant it. Estimates that at least a third and possibly as much as half of all farmland in Iowa use tile systems to drain excess water from the fields. Nitrates that leach into the soil can affect Iowa communities that depend on the rivers for clean drinking water, Helmers says. Nitrates that leach into the soil and are carried downstream are believed to contribute to a dead zone in the Gulf of Mexico where few plants or animals survive. Overall, there is need for additional information on how biomass feedstock production systems impact nitrate leaching.

Hops Helps Reduce Ammonia Produced by Cattle

ScienceDaily (July 24, 2010) — An Agricultural Research Service (ARS) scientist may have found a way to cut the amount of ammonia produced by cattle. To do it, he's using a key ingredient of the brewer's art: hops. Cattle, deer, sheep, goats and other ruminant animals depend on a slew of naturally occurring bacteria to aid digestion of grass and other fibrous plants in the first of their four stomach chambers, known as the rumen. The problem comes from one group of bacteria, known as hyper-ammonia-producing bacteria, or HABs. While other bacteria are helping their bovine hosts convert plant fibers to cud, HABs are breaking down amino acids, a chemical process that produces ammonia and robs the animals of the amino acids they need to build muscle tissue. To make up for lost amino acids, cattle growers have to add expensive and inefficient high-protein supplements to their animals' feed. Hops can reduce HAB populations. Hops, a natural preservative, were originally added to beer to limit bacterial growth. Researchers put either dried hops flowers or hops extracts in either cultures of pure HAB or a bacterial mix collected from a live cow's rumen. Both the hops flowers and the extracts inhibited HAB growth and ammonia production. They have completed a similar project with more typical forage. They recently identified a compound in red clover that inhibits HAB. Results of that study were published recently in *Current Microbiology*. Researchers also collaborated on a study in which hops had a positive effect on the rumen's volatile fatty acid ratios, which are important to ruminant nutrition.

EPA's Watershed Academy Sponsors 51st Webcast Seminar: "Re-Visioning Landscapes with LID: The Houston Experience"

On Wednesday, August 11, 2010, EPA's Watershed Academy sponsored a free Webcast on "Re-Visioning Landscapes with LID: The Houston Experience." During the past winter, the Houston Land/Water Sustainability Forum sponsored a national Low Impact Development (LID) Design Competition. The competition was created to educate design professionals, decision makers and the public on the economic, environmental and quality-of-life positive impacts of LID. The design teams, most of whom had no previous experience with LID, created designs for three real developments being planned around greater Houston—a green roadway, urban redevelopment, and a suburban residential design. The webcast will feature a discussion of the competition's ripple effect on Houston's design/build community as well as the building ordinances in Houston. A copy of this webcast will be posted online at www.epa.gov/watershedwebcasts.

Climate Ready Water Utilities Toolbox

EPA recently released the Climate Ready Water Utilities (CRWU) Toolbox. The Toolbox provides a searchable database for water utilities to identify relevant climate change-related impacts and target resources for responding to those challenges, including: Current federal, state, and association activities related to climate change impacts on water resources and utilities; Grant programs that could support climate-related actions by utilities and municipalities; Publications and reports; Tools and models; and Workshops and seminars. These resources are searchable by utility type and size, region, water resources, climate change impacts, and climate response strategies. The toolbox is available on EPA's Web Site at <http://www.epa.gov/safewater/watersecurity/climate/toolbox.htm>. The toolbox will be updated periodically so that it provides access to the latest available information.

FSA Releases CRP Interim Rule

The U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) published an interim rule for the implementation of the Conservation Reserve Program (CRP). This rule is effective immediately and addresses the following provisions:

- Cropland Rotation- Restores flexibility for determining planted and considered planted credit for CRP purposes with respect to alfalfa, multi-year grasses and legumes grown in rotation with an agricultural commodity. USDA chose a 12-year rotation period.
- Eligible Land- Amends the cropping history dates to the four of the six during 2002 through 2007. Previous cropping histories were 1996-2001
- Maximum County Acreage- Adds an additional waiver provision to allow continuous signup and CREP acreage to be excluded from the 25% maximum county acreage limit if the country government agrees.
- Acceptability of Offers- Adds "local preference" as a factor in offer acceptability.
- Pollinators- Adds a provision that allows approval of practices to encourage the development of habitat for, and use of conservation practices to benefit, native and managed pollinators.
- Permissive Uses- For new contracts replaced the term "managed grazing" with "routine grazing".

To view the complete interim rule, please visit the [Federal Register](http://www.federalregister.gov). The FSA is accepting public comments from now until September 27. To submit comments, please visit www.regulations.gov.

Ecosystem Management and Restoration Research Program (EMRRP) Publications

A new environmental benefit metric is described and proposed for use in planning environmental quality improvement projects using an ecosystem restoration approach. Called the Biodiversity Security Index (BSI), the metric indicates the value gained from securing the Nation's native species from decline toward extinction by providing more natural ecosystem support. Download:

<http://talk-technology.blogspot.com/2010/08/ecosystem-management-and-restoration.html>

