# WAY E-NEWS

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



May 9, 2011

A PUBLIC-PRIVATE PARTNERSHIP

Volume 11, Issue 10

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- PSAEC has posted new Extension and Research resources on our website
- Bay Farms On-Farm Network Making Conservation Pay

#### 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 717-705-47047
- 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 & 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 - www.vork-county.org/gov/AUTH/agri.htm

For information about farmland preservation in York County contact Patty McCandless at <a href="mailto:pmccandless@york-county.org">pmccandless@york-county.org</a> or call 717-840-7400.

#### Carroll Citizens for Sensible Growth - http://carrollcitizens.com/

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

#### Codorus Creek Watershed Association - www.codoruscreek.net

- Jul 11 CCWA Meeting of Members and Board, 7:00 pm, at York Water Co. (Mt. Rose Ave.)
- \* Jun 4 RESCHEDULED Oil Creek Restoration Monitoring at Fuhrman Farm, Gitts Run Rd., near Hanover, from 9:00 AM to 3:00 PM.
- <> Contact: Jim Leaman at 843-2929

#### Codorus Endowment Implementation Committee - www.yccf.org

- An advised fund of York County Community Foundation, the Codorus Watershed Endowment (CWE) is a substantial source of charitable support for the stream's improvement and the benefit of the many York Countians who use and enjoy this critical resource - for agriculture, industry, recreation and wildlife, and for drinking water and other municipal purposes.
- <> For more information, contact the York County Community Foundation at 14 West Market Street York, PA 17401-1203. Telephone: York 717.848.3733; Hanover 717.630.1843. Email: <a href="mailto:info@yccf.org">info@yccf.org</a>

#### Codorus State Park - www.dcnr.state.pa.gov

#### Conewago Canoe Club - www.conewagocanoeclub.org

- Aug 4 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.

# <u>Deer Creek Watershed Association</u> - <a href="http://deercreekwatershed.com/">http://deercreekwatershed.com/</a>

- Deer Creek Watershed Association Invites Public to Discuss Watershed Issues at Annual Meeting on May 26 in Darlington
- <> Contact Lee McDaniel at <a href="mailto:ldmcdaniel@aol.com">ldmcdaniel@aol.com</a>.

# Farm & Natural Lands Trust of York County - www.farmtrust.org

- Jun 2 RESCHEDULED Annual Meeting at Rambo Run Fishing Club
- Jun 10 Farm & Natural Lands Trust of York County is coming up on our 3rd Annual Clay Shoot, and this year promises to be the best
  yet. We highly encourage everyone to register early, as the event will surely fill up. Imagine leaving work early on Friday, June 10th to
  meet up with four of your friends or colleagues. You and the gang start out at noon with a nice lunch catered by White Rose Bar & Grill,
  then head out for an afternoon shooting clays at Central Penn Sporting Clays, Wellsville. To obtain a registration form, contact F&NLT
  below.
- <> 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 <a href="mailto:skenny@farmtrust.org">skenny@farmtrust.org</a>

# Friends of Codorus State Park - www.friends-of-codorus.org/

For more information contact Becky Miller at 632-6747 or email <a href="mailto:beckymill1@juno.com">beckymill1@juno.com</a> or Dave Carbaugh at 637-9875 or email <a href="mailto:carbaugh3@embarqmail.com">carbaugh3@embarqmail.com</a>

## Gifford Pinchot State Park - 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

## Gunpowder Valley Conservancy - 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 <a href="mailtitle-owl@msn.com"><u>little-owl@msn.com</u></a>.

# <u>Horn Farm Center for Agricultural Education</u> – <u>www.hornfarmcenter.org</u>

Thoughts of Spring are in the air and new things are "growing" at the Horn Farm. Read all about them in this issue of "Around the Horn."

- Register Now For Community Gardens at the HFC
- POTATO PATCH PROJECT AT THE HORN FARM
- Girl Scout Volunteers Around the Farm
- 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/

- Calendar of events 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.

# <u>Lower Susquehanna Riverkeeper</u> - <u>www.lowersusquehannariverkeeper.org</u>

<> Contact: Michael Helfrich, Lower Susquehanna RIVERKEEPER®, York, PA. Cell phone: 717-779-7915 E-mail: lowsusriver@hotmail.com.

#### Maryland's Upper West Shore Trib Team - http://www.dnr.state.md.us/bay/tribstrat/upper\_west/up\_west\_shore.html

<> Contact: RupertRossett, Tributary Team Coordinator, e-mail: RupertRossetti@aol.com

## 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

- May 14 Native Plant Fest, 9:00 AM to 2:00 PM, at York County ANNEX
- July 25 Advisory Board meeting, 6:30 pm, York County ANNEX
- <> 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 <a href="mailto:pbccg@hotmail.com">pbccg@hotmail.com</a> 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.

# <u>Prettyboy Watershed Alliance</u> - <u>www.prettyboywatershed.org</u>

- Hiking Trails Time to get out and enjoy the Prettyboy and to let you know two trails Hemlock Gorge and Prettyboy have been described and can now be downloaded.
- Springfest Sat, 05/14/2011 9:00am 3:00pm PWA is participating in the 16th Annual Springfest at St. James' Episcopal Church. The address is 19200 York Rd, Parkton, MD (take I-83 to Exit 33 and go south on York Rd.) There will be a huge silent auction, pit beef, wine tasting, live entertainment, a kid's fun zone, crafts, plants, and a Green Zone featuring green vendors and environmental organizations! A rain date is May 21, 2011. For more information got to <a href="https://www.stjamesparkton.org">www.stjamesparkton.org</a>.
- Big Tree Sale! Sat, 05/14/2011 9:00am 1:00pm While they last! Where: Baltimore County Center for Maryland Agriculture. Directions: I-83 North to Exit 20 (Shawan); West to 1114 Shawan Road. Turn right into driveway. (It is just east of Cuba Rd.) If you get to the stop light you have gone a bit too far. BIG TREES are familiar native shade trees that grow to greater height and breadth, such as oaks, maples, and river birch, compared to smaller ornamental understory trees such as dogwoods or flowering cherries. BIG TREES need more room to grow and take longer to mature, but they provide greater and long-lasting benefits to homeowners when properly sited. BIG TREES: add to the value of properties, provide shade for cooling and save energy, soak up excess rain water, provide habitat for forest birds. A selection of 235 native shade trees ideal for larger yard spaces is available from our reforestation nursery. Cash or Checks Accepted. Sorry, no advance orders.
- <> Contact: Nancy Shaper at nshaper@jhmi.edu

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

- Saturday, May 14, 2011 12:30 pm The Ecology of PA Forests Presentation Wildwood Park, Harrisburg
- 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 Linglestown Rd, Harrisburg, PA 17110. All members are welcome!
- <> Kim Anderson at sgfornyc@aol.com.

# Shank's Mare Outfitters - www.shanksmare.com

#### GO PLAY OUTSIDE!

- Susquehanna House
- Lock 2 Cafe
- Outdoor activities <a href="http://www.shanksmare.com/html/activities.html">http://www.shanksmare.com/html/activities.html</a>
- <> Shank's Mare: Call Us: 717-252-1616. Email us: Shanksmare@comcast.net

# <u>Spoutwood Farm Center for Sustainable Living</u> - <u>www.spoutwood.com</u>

- Board of Directors meeting July 8, 2011, 7:00 PM, at the farm
- Contact Rob & Lucy Woods at Spoutwood Farm at 717-235-6610 or spoutwood@comcast.net.

#### Sunnvside Farm CSA - http://www.sunny-side-farm.com/

We are the first farm to raise poultry and receive Food Alliance certification. We are very proud to be certified in our farm practices by this well respected group. Welcome to the virtual home of Sunnyside Farm, your go-to place off the I-83 corridor for pasture-based, intensive graised grass-fed beef, pork, chickens, farm fresh eggs, turkeys (for Thanksgiving) and raw honey. We also offer salmon, wild caught in Alaska. Located between York and Harrisburg in southern Pennsylvania, Sunnyside Farm welcomes visitors, just requests that you call before visiting. Homer Walden and Dru Peters have been farming for years on leased land, and in August 2009 acquired the property that is now Sunnyside Farm.

<> Contact: Dru Peters <u>drupeters@yahoo.com</u>

# 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: <a href="mailto:info@lyhr.org">info@lyhr.org</a>.

#### 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

- May 11 Monthly Chapter Meetings 2nd Wednesday, 7:00 p.m., at Gander Mtn. (winter)
- <> 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/

- May 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/

- Meet the 3rd Wednesday @5pm.
- <> Contact: Adam McClain, Ph: 717-334-0636; E-mail: stilden@adamswatersheds.org

#### Watershed Alliance of York - www.watershedsyork.org

- July. 6 Annual Meeting of WAY Board of Directors, 7:00 PM, at 324 W. Market St., York, PA.
- GoodShop Deals for WAY <a href="http://www.goodsearch.com/goodshop.aspx">http://www.goodsearch.com/goodshop.aspx</a>
- 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

# Wecology - NEW!

#### Yellow Breeches Watershed Association - www.ybwa.org

- YBWA is sponsoring a pilot event with planning and coordination provided by Brook Lenker and Sara Nicholas from DCNR. We are
  running a youth sojourn on the Yellow Breeches June 12-14 (if it's below flood stage by then!), focused on middle & high school
  students.
- BOARD OF DIRECTORS MEETING Wednesday, June 1, 2011, Messiah College Library-Athenaeum Room 6 PM.
- Contact: Deborah Goetz, at <a href="mailto:deborah.p.goetz@gmail.com">deborah.p.goetz@gmail.com</a> or phone 717-697-4734

#### 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. <a href="http://www.rayac.com">http://www.rayac.com</a>

# York Audubon Society - http://www.yorkaudubon.org/

<> Contact Tom Smith at 717-246-9767 or tls35@psu.edu.

#### 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 Barrel Sale! Visit our website for more information and prices.
- <> Contact: YCCD at 717-840-7430 or <a href="mailto:yorkccd@yorkccd.org">yorkccd@yorkccd.org</a>

# York County Parks & Recreation - www.YorkCountyParks.org

- Featuring 11 parks and approximately 4,300 acres, the York County Department of Parks and Recreation awaits your visit. Trails, lakes, pavilions, streams, and creatures of all kinds eagerly look forward to seeing you. So bundle up, pack some hot cocoa, and bring the family out to hike the trails, sled on the hills, watch the stars, and breathe in the crisp, fresh air of the New Year.
- For more information, contact York County Department of Parks and Recreation, 400 Mundis Race Road, York PA 17406-9721. Phone: (717) 840-7440. E-mail: <a href="mailto:Parks@York-County.org">Parks@York-County.org</a>. Web: <a href="mailto:www.YorkCountyParks.org">www.YorkCountyParks.org</a>. Nixon Park Nature Center, 5922 Nixon Drive York PA 17403. Phone: (717) 428-1961. E-mail: <a href="mailto:NixonCountyPark@york-county.org">NixonCountyPark@york-county.org</a>.

#### 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

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#### **WATERSHED EDUCATION & OUTREACH**

## Water Issues Worry Americans Most, Global Warming Least

PRINCETON, NJ -- With Earth Day about a month away, Americans tell Gallup they worry the most about several water-related risks and issues among nine major environmental issues. They worry least about global warming and loss of open spaces. Environmental concerns are flat since 2010, but down over past decade. At least three in four Americans surveyed in Gallup's 2011 Environment poll say they worry a great deal or a fair amount about contamination of soil and water by toxic waste, pollution of rivers, lakes, and reservoirs, pollution of drinking water. and the maintenance of the nation's supply of fresh water for household needs. Air pollution is nearly as high a concern for Americans, with 72% worried a great deal or a fair amount about it. A little more than 6 in 10 worry about the related problems of extinction of plant and animal species and the loss of tropical rain forests. Slightly fewer worry about urban sprawl and loss of open spaces, while barely half, 51%, worry about global warming. The poll was conducted March 3-6, prior to the emergence of an earthquake- and tsunami-generated nuclear crisis in Japan that has raised Americans' own concerns about nuclear power. The current levels of public concern about various environmental problems are essentially unchanged from 2010. However, Americans are less worried today than they were 10 years ago about all eight issues Gallup measured in 2001. The decline over the past decade spans a period when the public often expressed surging concern about terrorism, the Iraq war, gas prices, and the economy. Bottom Line - Although the United States has experienced nothing like the mass drinking-water scare that is gripping Japan during its current nuclear crisis, Americans largely recognize the importance of clean water to their lives. All four environmental issues referring to "water" in this year's Gallup Environment poll rank in the upper tier of environmental concerns, with air pollution a close fifth. Perhaps not surprisingly, there is a slightly steeper drop-off in concern about several issues that aren't directly related to daily survival, such as the loss of tropical rain forests and urban sprawl. What may surprise some, given the broad exposure the issue has received in recent years, is that global warming ranks lowest -- consistent with other Gallup polling -- with barely half of Americans concerned and 48% only a little or not at all concerned. Survey results: http://www.gallup.com/poll/146810/water-issues-worry-americansglobal-warming-least.aspx

#### National Academy Of Sciences Releases Chesapeake Bay Program Evaluation

The National Research Council of the National Academy of Sciences this week released a pilot study that contains science-based conclusions and recommendations to help the Chesapeake Bay Program evaluate its efforts to achieve nutrient reduction goals and clean up the Bay. The study, "Achieving Nutrient and Sediment Reduction Goals in the Chesapeake Bay: An Evaluation of Program Strategies and Implementation," validates and provides constructive feedback on the work the Bay Program has undertaken during the last 18 months to improve accountability. The NAS study results reinforce the partnership's current work, including the Chesapeake Bay "pollution diet," or TMDL; the Bay iurisdictions' Watershed Implementation Plans; and two-year milestones. According to the report, the milestone strategy improves upon past strategies by committing states to tangible, near-term goals, but consequences for not attaining the goals remain unclear. NAS recognized the Bay watershed's complexity and the equally intricate tracking systems needed to accurately report on restoration progress, as well as the fact that the Bay Program is in the process of better integrating its voluntary and regulatory work. The study also provides suggestions for strengthening processes for tracking and accounting of best management practices; assessing two-year milestones; adaptive management; and implementation strategies. The report says that nearly all states have insufficient information to evaluate their progress in reducing nutrient pollution, limiting their capacity to make mid-course corrections. Additionally, tracking and accounting issues lead to an incomplete and possibly inaccurate picture of the bay jurisdictions' overall progress in meeting program goals. For example, jurisdictions face challenges tracking practices that are not cost-shared and verifying that practices are correctly implemented and maintained. Another main concern of the report's authoring committee is the possibility of overly optimistic expectations among the public. While science and policy communities generally recognize the inherent uncertainties in modeling water quality, the general public "will almost certainly be frustrated" if they expect visible, tangible evidence of local and bay water quality improvements in short order. Legacy effects of nutrient pollution already in the Chesapeake Bay watershed will significantly delay results from the program's efforts. "Sustaining public and political support for the program will require clear communication of these uncertainties and lag times and program strategies to better quantify them," the report states. The report highlights approaches for improving the tracking and accounting of pollution control practices, including creating a consolidated regional best management practices program and increasing use of intensive small-watershed monitoring. The committee also concluded that establishing a Chesapeake Bay modeling laboratory would likely build credibility with the scientific, engineering, and management communities and improve the integration of modeling and monitoring. In addition, the report identifies potential strategies that could be used to meet the Chesapeake Bay Program's long-term goals. The strategies, meant to encourage further discussion, include improving manure management in agriculture, curbing residential fertilizer use, and exploring additional air pollution controls.

## Community-Based Watershed Organizations: Working toward Environmental and Social Outcomes

Community-based watershed organizations are locally-based groups of volunteers who are committed to improving water quality in a specific watershed. Participants are usually a mix of local leaders, agency representatives, and private citizens who live in or have a personal connection to the watershed. A research project conducted in 2002 identified more than 500 community-based watershed organizations in Pennsylvania! These organizations primarily identify environmental outcomes as their goals, but it is equally important to recognize the benefits they can have for their communities. Here we summarize some of the main impacts of community watershed organizations identified in that research project. Read more... <a href="http://extension.psu.edu/water/discovery-watersheds/newsletter/news/2011/community-based-watershed-organizations-working-toward-environmental-and-social-">http://extension.psu.edu/water/discovery-watersheds/newsletter/news/2011/community-based-watershed-organizations-working-toward-environmental-and-social-</a>

<u>outcomes?utm\_source=feedburner&utm\_medium=email&utm\_campaign=Feed%3A+agsci-water-watershedwinds+%28Penn+State+Watershed+Winds+Newsletter%29</u>

## Volunteers remove trash, debris from streams throughout the Chesapeake Bay

Local streams and woodlands received a clean start to Earth Month as thousands of volunteers came out on the first Saturday in April for [5]Project Clean Stream, one of the largest cleanup events in the Chesapeake Bay region. [6]Perdue proudly presented Project Clean Stream 2011 as the event's first lead sponsor and allowed for some serious results. Easily topping previous years and our 2011 goals, on April 2nd Project Clean Stream brought in almost 300,000 lbs of trash (150 tons, the weight of 11 school buses) with nearly 4,900 volunteers at an impressive 217 cleanup sites! In addition, sites were asked to track the number of plastic or glass containers removed; sites reported a remarkable 130,000 containers. Even larger numbers are on their way; 20 sites are still on target to submit results. Results and efforts such

as the ones seen from Project Clean Stream are a true testament to collaboration and partnerships. Over [7]90 different watershed groups and businesses helped to organize cleanup sites for 2011. Perdue alone boasted over 50 cleanup sites throughout Maryland and Delaware and even states outside of the Bay watershed including states as south as Georgia and as west as Kentucky and Indiana. The Alliance was successful in securing sites in Pennsylvania and Virginia as well as introducing invasive species pulls and tree plantings to the event. On a more local level, watershed organizations, such as Blue Water Baltimore and Gunpowder Valley Conservancy, dramatically expanded the number of sites and community involvement within their watersheds. Project Clean Stream Under the coordination from the Alliance for the Chesapeake Bay, with the help of Perdue, the Chesapeake Bay Trust and partnering watershed groups, cleanup sites were significantly increased in quantity and distribution. The Alliance for the Chesapeake Bay applauds the efforts of our volunteers, contributors, and partners in this important out-reach initiative, and understands that Project Clean Stream would not be possible without the assistance of the many individuals that work towards making this annual clean up a success. This year, Project Clean Stream coordinated a total of 153 cleanup sites plus the additional 50+ sites coordinated by Perdue. For more information about Project Clean Stream, or to schedule an interview with Dan Ellis, visit [9]www.allianceforthebay.org/pcs, call (443) 949-0575 or e-mail dellis@allianceforthebay.org.

# Eyes on the Bay Launches Improved Website

Real time water monitoring data is now online for a greater number of locations throughout the Chesapeake Bay. The Eyes on the Bay website also makes it possible to look at long term trends, with data going as far back as 1998. The long term data document Bay health as it improves over time. Look at Eyes on the Bay... <a href="http://mddnr.chesapeakebay.net/eyesonthebay/index.cfm?yearselect=2011&submit=Submit">http://mddnr.chesapeakebay.net/eyesonthebay/index.cfm?yearselect=2011&submit=Submit</a>

#### Weather Causes Slight Decline in Bay Report Card

Higher rainfall and associated stormwater runoff in many regions and river systems throughout the Bay caused a 4% decrease in water quality and biological health indicators for 2010. The Chesapeake Bay ecosystem's health is affected by many factors, including human activities and natural variations in rainfall, which is the major driver of stormwater runoff from urban, suburban and agricultural lands. The results of improvements made in reducing pollution can be masked in some years by unusually high rainfall and associated runoff.

Details... <a href="http://www.baystat.maryland.gov/current\_health.html">http://www.baystat.maryland.gov/current\_health.html</a>

#### **Annual Crab Survey Shows Positive Results**

The 2011 Blue Crab Winter Dredge Survey found the Chesapeake Bay's blue crab population at its second highest level since 1997. The adult crab population has been above the restoration target for the third year in a row now, showing good results from the stronger management measures were put into place in 2008. See more... <a href="http://www.dnr.maryland.gov/dnrnews/pressrelease2011/sgg\_041911.asp">http://www.dnr.maryland.gov/dnrnews/pressrelease2011/sgg\_041911.asp</a>

# Website Lets Bay Residents Calculate their Nitrogen Footprint

Residents of the Chesapeake Bay watershed and elsewhere have a new way to estimate how big of a nitrogen footprint their daily life creates. University of Virginia scientists James Galloway and Allison Leach have created a web-based nitrogen calculator that estimates the amount of the nutrient individuals are responsible for creating, and suggests how they can reduce their impact. http://www.bayjournal.com/article.cfm?article=4034

# EPA Celebrates American Wetlands Month: Learn! Explore! Take Action!

May marks the 21st anniversary of American Wetlands Month (AWM), a time when EPA and its wetland partners across the country celebrate the vital importance of wetlands to our nation's ecological, economic, and social health. EPA and a host of other public and private partners are planning and/or participating in a number of events including:

- A national webcast, "Wetlands-At-Risk Protection Tool (WARPT)," on May 4 that will outline a process for local governments to quantify the extent of at-risk wetlands, document the benefits they provide at various scales, and use the results to develop a wetland protection plan (<a href="http://www.cwp.org/our-work/training/webcasts.html">http://www.cwp.org/our-work/training/webcasts.html</a>).
- National Wetlands Awards Ceremony on Capitol Hill on May 4. The Environmental Law Institute, EPA, and other federal partners will honor a diverse group of individuals for their extraordinary commitment to conserving wetlands. (http://www.nationalwetlandsawards.org).
- "Wetland Clean Up Day" on May 7 at Huntley Meadows in Alexandria, VA, sponsored by Ducks Unlimited (park includes 1,425 acres of wetlands, forests, and meadows)
- EPA hosted Webinar "Promoting Wetland Conservation and Restoration to Private Landowners" on May 16 featuring an overview of outreach programming in outdoor recreational enterprise development and associated land and water conservation practices to private landowners, resource agencies, and state and local elected officials in the U.S. (<a href="https://www2.gotomeeting.com/register/447218610">https://www2.gotomeeting.com/register/447218610</a>).

EPA regional activities planned for the month of May include educational displays, discussions, presentations, special feature articles, wetland walks and celebrations, and an array of other outreach and communication events. Information on national, regional, and local activities planned for May will be updated and posted throughout the month on EPA's American Wetlands Month website:

<a href="http://www.epa.gov/owow/wetlands/awm/">http://www.epa.gov/owow/wetlands/awm/</a>. EPA has also created an American Wetlands Month Widget which can easily be shared and embedded on other Web site(s), hot linking to EPA's American Wetlands Month web page (http://tinyurl.com/3935qyh) and EPA will produce a

# Enter the Carson Contest - Jun 10

Submit creative projects to the Rachel Carson "Sense Of Wonder" contest, in four categories: photography, essay, poetry, and dance - from a team of two or more persons, a young person and an older person. Deadline is June 10, 2010. <a href="http://www.epa.gov/aging/resources/thesenseofwonder/">http://www.epa.gov/aging/resources/thesenseofwonder/</a>

number of fun and informative American Wetlands Month tweets. Contact Kathleen Kutschenreuter (202) 566-1383 for more information.

# National Council for Science and the Environment (NCSE) Launches Website: Biodiversity in a Rapidly Changing World

The website brings together reports, presentations, and background materials related to NCSE's ongoing efforts to advance science and public understanding of the rapid and catastrophic loss of biodiversity and life on Earth. Visit the website at: <a href="http://www.ncseonline.org/biodiversity/">http://www.ncseonline.org/biodiversity/</a>.

#### New Catch-and-Release Protections for Pennsylvania Bass Populations

In April, the Pennsylvania Fish and Boat Commission (PFBC) announced that it is placing a permanent catch-and-immediate-release regulation on smallmouth and largemouth bass in portions of the Susquehanna and Juniata Rivers\*. The regulation is designed to protect the rivers' existing bass populations and covers approximately 32 miles of the Juniata River and 98 miles of the Susquehanna. PFBC also announced proposed regulations that, if adopted, would close bass fishing on the same river segments during the spawning season and extend the catch-and-immediate-release regulations to portions of tributaries beginning in 2012. Under the proposed rulemaking, catching or attempting to catch bass on the designated river segments and portions of tributaries would be prohibited during the spring spawn, from the first Saturday after April 11 until the first Saturday after June 11. During the remainder of the year, catch-and-immediate-release regulations would apply to anglers and a catch-measure-immediate-release format would apply to tournaments. If approved under a final rulemaking order, the proposed regulations would take effect January 1, 2012.

**HOLTWOOD Spring 2011 Environmental Programs** 

DATE	PROGRAM	LOCATION*	TIME
Thur., May 19	Construction of McCall's Ferry Hydroelectric Plant in the Early 1900's, know today as Holtwood Hydroelectric Plant	HEC	7-8 p.m.
Sat., June 4	Eagles/Osprey Walk & Talk of Area Birds	L-12	9 -11 a.m.
Sat., June 4	KTA Training Hike: Lock 12 to Otter Creek Campground	L-12	9 a.m.
Sat., June 11	KTA Training Hike: Pequea Creek Campground to Norman Wood Bridge	PC	9 a.m.

\* Location Code: SF - Shenk's Ferry Wildflower Preserve Q - Quarryville Library L-12 - Lock 12
HEC - Holtwood Environmental Center MU - Millersville University, Roddy Hall PC - Pequea Creek Campground

**BRUNNER ISLAND Spring 2011 Environmental Programs** 

DATE	PROGRAM	LOCATION*	TIME
Sun., June 5	Wonders of the Wetlands, Nature Walk	BIW	2:30-3:30 p.m.

\*Location Code: MU – Millersville University, Roddy Hall, Room 261 CR – Main Conference Room, Gate A BIFA – Brunner Island Fishing Area BIW – Brunner Island Wetlands

For more information, please visit our Web site at www.pplpreserves.com, call 1-800-354-8383 or e-mail pplpreserves@pplweb.com.



# WATERSHED FINANCIAL ASSISTANCE

# Wild Resource Conservation Program - 2011 Grant Applications Being Accepted - Jun 30

Grant applications are now being accepted by the Wild Resource Conservation Program. The deadline for submission is June 30, 2011 at 3 PM. The 2011 Project priorities are as follows:

- Compile and analyze existing population and distribution data for at-risk species
- Identify communities, habitats, and natural systems most at-risk from environmental stressors
- Monitor species and natural systems' responses to environmental stressors
- Develop predictive models for population and distribution changes of at-risk species
- Monitor and develop predictive distribution models for new invasive species and pathogens that may affect our native species and natural systems
- Critical Conservation Needs

For detailed information about the 2011 Priorities, and to apply, go to: <a href="http://www.dcnr.state.pa.us/wrcp/2011grants/index.aspx">http://www.dcnr.state.pa.us/wrcp/2011grants/index.aspx</a>. To begin your application, click on the PA state outline on the left side of the page, then Log In/Register, again on the left. Should you have any questions, please contact Deb Miller at 717-787-3212 or e-mail me at <a href="https://deb.edu.new.deb.niiler@state.pa.us">deb.edu.new.deb.ed

#### Catalog of Federal Funding Sources for Watershed Protection

The Catalog of Federal Funding Sources for Watershed Protection Web site is a searchable database of financial assistance sources (grants, loans, cost-sharing) available to fund a variety of watershed protection projects. To select funding programs for particular requirements, use either of two searches below. One is based on subject matter criteria, and the other is based on words in the title of the funding program. Criteria searches include the type of organization (e.g., non-profit groups, private landowner, state, business), type of assistance sought (grants or loans), and keywords (e.g., agriculture, wildlife habitat). http://cfpub.epa.gov/fedfund/



# WATERSHED FACILITATION ASSISTANCE

#### MAE-scapes Spring Native Plant Fest - May 14

Join us Saturday, May 14, 2011, from 9 am to 2 pm, at the York County Annex, 112 Pleasant Acres Road, York, PA 17402. Rain or shine. Shop a variety of local vendors for excellent native plants

- Tour the MAEscapes Demonstration Gardens
- Visit the "Ask the Native Plant Experts" booth
- Visit displays about birds, bees, 4H & more!

- Books, garden art, stepping stones, food & fun!
- FREE lectures about native plants & landscaping

For more information call 717.840.7408 or visit www.MAEscapes.org

#### Maryland's Phase II WIP Webinar - May 16

Please join us for the next WIP Phase II webinar on May 16, form 10am-11:30am. To participate you only need access to a computer with a broadband connection (no dialup) and a set of headphones or computer speakers. You will be able to submit questions via a text box as explained in the FAQ below. These monthly "Phase II WIP Webinars" are designed to address technical and policy issues that arise. The webinars will supplement the monthly local team meetings, which will continue to occur as planned. The monthly webinars will typically be scheduled in the second week of each month. The webinars will be recorded for people who cannot participate live. The following presentations will be covered during the webinar;

- Chesapeake Bay Program Land Use (Lee Currey)
- Maryland's Nutrient Trading Program (John Rhoderick)
- State 2-Year Milestone Guidance (Jim George)

Pending its expected release on May 9, there will likely be some additional discussion of EPA's 2-Year Milestone Guidance. The webinar will also include time for Q & A. Here is the link needed to join the webinar: <a href="https://mddnr.ilinc.com/join/fmzyxps">https://mddnr.ilinc.com/join/fmzyxps</a>. Questions contact Christopher Aadland, Watershed Implementation Specialist, Maryland Department of Natural Resources, Tawes State Office Building; E-2, 580 Taylor Avenue, Annapolis, MD 21401. Phone; 410-260-8736.

# Promoting the Region's River Towns - Your invited! Deadlines Quickly Approaching - May 19

The SEDA-COG Community Resource Center and the Susquehanna Greenway Partnership would like to present a workshop series geared towards river towns. As part of the River Towns – Phase II: Discovering Middle Susquehanna Valley River Towns project, we are providing the following workshops:

- Treasured Towns & Landscapes on Monday, May 23.
- Community Building for River Towns on Tuesday, June 28

On March 29, 2011 the Susquehanna Greenway River Town Assessment Tool was piloted with four river towns. The premise of the tool was explore each towns' existing physical, environmental, cultural, and economic conditions to determine the best direction for enhancement efforts. The assessment is divided into five components – Community Life, Sustainable Economic Development, 21st Century Economy, Treasured Towns (the built environment) and Treasured Landscapes (the natural environment). The final version of this assessment will be available to the general public this July on the Susquehanna Greenway website. Below is a list of speakers and their presentations:

- Andrew Miller- Tourism in the Middle Susquehanna Region
- Katie Faull- Moravian and Native American History in the Susquehanna Valley
- Kim Wheeler- Sustainable Green Infrastructure
- Carol Hussa- Keystone Active Zone Passport

To help river towns bolster this self-assessment of their towns, we are offering the workshops listed above. River towns are special towns; special places that have much to offer, yet distinct in character and identity. The workshops are designed to provide information for river towns to decide each one's unique course as it prepares for the challenges and opportunities that lie ahead. Being part of the Susquehanna Greenway is a distinction that should be celebrated. To fully realize your potential as a Susquehanna Greenway River Town, we would like to provide you with the tools to help your town capitalize on the economic, environmental and social benefits that result from protecting, enhancing and promoting your town's assets and environmental resources. Click here for the registration form. Multiple spaces are available if more than one person from your organization should choose to attend. The cost of each workshop is \$15. Follow the RSVP received by schedule below in order to allow us to accommodate for lunch. Registration Deadline-Workshop 2: May 19, 2011. Registration Deadline-Workshop 3: June 22, 2011. Questions? Contact Amy Davis at adavis@seda-cog.org or 570-524-4491

# <u>Deer Creek Watershed Association Invites Public to Discuss Watershed Issues at Annual Meeting in Darlington</u> - May 26

The Deer Creek Watershed Association cordially invites you to our next annual meeting to meet our Directors and to talk with them about the goals and activities of the Association. Several broad areas may be of interest to you, including watershed planning, County master planning, natural resources planning and management, and economic and infrasture implications for the watershed, to name a few. This has been a busy year. We can tell you what we have been doing, and we certainly would like to have your thoughts about what things you think need to be considered in the future. Please join us at the Harmony Deer Creek Presbyterian Church at 6:30pm on Thursday, 26 May 2011. The Church is located on Maryland Highway 161 at its intersection with Harmony Church Road, just a few miles south of the village of Darlington. We will meet in the building next to the church itself. As always, our support for the watershed relies upon annual contributions, and you can become a contributor for the year 2011 now. Your contribution is fully tax deductible. We have established several levels of giving above the basic contribution of ten dollars. Your contributions help the Association carry out its purpose to promote the conservation of the natural resources of the Deer Creek Watershed. To contribute, simply detach the completed section below and send it with your check payable to DCWA. Contributions are also accepted electronically at our website - <a href="https://www.deercreekwatershed.com">www.deercreekwatershed.com</a>. Thank you for your support, and I hope you will join us on May 26th!

# Green Infrastructure in Your Backyard Webinar Series - May 26

Green infrastructure refers to a planned and managed system of green spaces, greenways and natural lands. These lands improve water quality and wildlife habitat, as well as provide opportunities for outdoor recreation/tourism. Green Infrastructure has been utilized by counties to address regional issues, such as flooding, drought, stormwater runoff, and habitat fragmentation. Join the webinar to learn from counties in your region. Northeast & Great Lakes: May 26, 2011 2:00-3:15 PM EDT. Webinar program is directed to counties in the following states, although all are welcome and encouraged to participate: IL, IN, MI, WI, MN, ME, NH, MA, NY, NJ, PA, WV, VA, and OH. <a href="https://www.gotomeeting.com/register/742245491">www.gotomeeting.com/register/742245491</a>.

Call for Presentations For the 6th Annual CHESAPEAKE WATERSHED FORUM - May 27

September 29 - October 2, 2011 at National Conservation Training Center, Shepherdstown, West Virginia. The Forum Planning Committee is now accepting workshop proposals for the 2011 Chesapeake Watershed Forum taking place on September 29 through October 2 at the National Conservation Training Center in Shepherdstown, WV. The Forum is a widely anticipated regional training opportunity for local watershed and conservation organizations along with local governments in the Bay region. Participants include volunteers, board and staff members, skilled restoration practitioners, experienced leaders, and funders. Workshop Guidelines:

- · Presenters are allowed to submit more than one workshop proposal, but each proposal must be submitted separately.
- Workshops should focus on a combination of instruction and hands-on skill-building not just lecturing. The steering committee discourages workshops with panel discussions.
- Workshops are scheduled for 90 minutes. Ample time should be reserved for a question and answer session. Proposals that demonstrate audience interaction will be viewed more favorably.
- Workshops should be geared toward the following audience(s): Staff, board members and volunteers with local/regional watershed
  conservation organizations, AND/OR Elected or appointed officials and staff of local government
- Workshops should highlight valuable lessons learned and potential transferability to other localities and watersheds.

The Forum Planning Committee is seeking to attract a variety of workshops that could be categorized into but not limited by the following track headings: Restoration Science and Practice; Conservation and Preservation; Planning and Regulation; Engagement and Communication; Organizational Development; Fundraising and Financing; Web Communications; Local Government Initiatives. Additional attention will be given to proposals that highlight successful social marketing campaigns and/or demonstrated behavior change. Please click here <a href="http://www.chesapeakenetwork.org/m.htm?m=v&hid=43264">http://www.chesapeakenetwork.org/m.htm?m=v&hid=43264</a> for more information and to submit your proposed presentation..Deadline is May 27, 2011. Further details on the Forum will be forthcoming at <a href="http://www.chesapeakenetwork.org">www.chesapeakenetwork.org</a>.

# Farm & Natural Lands Trust - Annual Meeting NEW DATE - Jun 2

Please mark your calendars for Thursday, June 2nd for the Farm & Natural Lands Trust of York County Annual Meeting at Rambo Run Club. Please reply if you plan on coming and I will get back to you with directions. The Annual Meeting will take place at Rambo Run Club, a private outdoors club, located in Felton, East Hopewell Township. This 170+ acre property was recently preserved by FNLT, and features some of the most beautiful and unique landscapes in all of York County. Rare and threatened wildlife exist throughout the property, which includes two miles of a pristine tributary to Muddy Creek. I've attached a picture by FNLT friend Mary Kline that gives one an indication of the beauty of this property. Our meeting begins at 5:30 PM with a wine and cheese social. At 5:45 PM we'll have a brief presentation on all the great things happening with FNLT and a quick history of Rambo Run Club. Immediately following the meeting, you are welcome to tour the property. Throughout the tour, we'll have experts on hand to point out many of the unique attributes that make Rambo Run a key preservation project for York County. So please join us for this once-in-a-lifetime opportunity to see a truly spectacular part of York County! To RSVP, you can simply reply by email or give me a ring in the office. I will respond swiftly with driving directions to Rambo Run Club. Thank you for your support. Sean Kenny skenny@farmtrust.org.

# The Yellow Breeches Youth Sojourn - An educational canoeing and kayaking expedition for youth ages 11-18 - Jun 12-14

Sunday, June 12 to Tuesday, July 14, 2011 - Boiling Springs to New Cumberland. Want to be an ambassador for conservation? Spend three unforgettable days exploring the Yellow Breeches Creek with a colorful flotilla of other young people. Observe nature in real time, learn about environmental issues, and show your commitment for healthy, sustainable waters and open spaces. Led by professional guides from Blue Mountain Outfitters and escorted by enthusiastic and capable adult leaders from local schools, outdoor groups, and conservation organizations, paddle this state scenic river and camp along its shores. Enjoy hearty meals, engaging programs, musical entertainment, and much more. Depart with new perspectives of the world around you, an appreciation for paddle sports, and great memories of an exciting adventure! River Sojourns are a Pennsylvania tradition. Every summer, individuals and families celebrate and discover the wonders of our rivers on these special voyages but never before has there been a Sojourn just for youth...until now! You don't have to be an Olympic kayaker or canoeist to join the fun, but a little paddling experience on creeks or rivers is required. If you'd like a refresher, we're offering paddling skill sessions at Boiling Springs Lake on June 12. We'll cover basic strokes, wet exits, paddling sefty, and a little free time to get extra comfortable on the water. All meals are provided on the Sojourn, including vegetarian options, plus special campfire treats and supplementary snacks for our time on the water. Please read through all the Sojourn information provided and if you like what you see, sign-up! Registration opens April 20 and closes when the trip is filled or by May 20 (whichever comes first). Space is limited to the first 75 registrants. Special leadership opportunities are available for high school students. See the Junior Leader job description for details. Questions? Please call Brook Lenker at 717-756-2637 or email dbsslenker@comcast.net. Hope to see YOU on the Yellow Breeches!

# Ribbon cutting and dedication by the Mayor - Jun 14

You are invited to the official ribbon cutting and opening of the 4-H community garden!! This event will be held on June 14th at 11am at the garden (234 South Pershing Ave). There will a dedication by Mayor Kim Bracey and light refreshments to follow. RSVP is appreciated – last minute attendance welcomed! For more information, contact Tia Underkoffler, Urban Youth 4-H Educator, Penn State Cooperative Extension - York County. E-mail: tmp156@ag.psu.edu. Phone: 717.840.7408.

# Educators Can Become 'Watershed Explorers - Jun 20-24

The Keystone College Environmental Education Institute is hosting a "Watershed Explorers" workshop for educators of grades K-6 in La Plume, June 20-24. The hands-on course will explore watershed concepts, environmental issues and offer tools and strategies for teaching about watersheds. The course will also address human impacts on watersheds, applied stream ecology and water-quality monitoring. Act 48 hours may be offered, with registration available online.

For more information: Keystone College – "Watershed Explorers"

# Course for Middle School Teachers this summer: Investigating the Chesapeake Environment - Jul 11 - Aug 5

Calling middle-school teachers! This summer, dive into the Chesapeake Bay...and earn four graduate credits from Longwood University by taking this unique course: SOLstice: Summer of Learning - Science Teachers Investigating the Chesapeake Environment. July 11 - August 5, 2011. This unique and exciting Chesapeake Bay Academy will bring together university faculty, practicing middle-school teachers, and preservice middle-school science teachers to work collaboratively as "teacher-researchers." The context: Our Chesapeake Bay and its watershed.

The focus: The development of disciplinary thinking through authentic scientific investigations. The charge: The resolution of public issues through practical, engaged learning and mathematical and scientific ways of knowing. The impact: The transfer of scientific knowledge to multidimensional civic issues and to the middle-school classrooms. Goals of the Course

- Engage actively in scientific investigations and inquiry learning
- Increase content knowledge of Chesapeake Bay issues
- Practice with tools, techniques, and technology used in field data collection
- Engage in discussions with practicing scientists and natural resource professionals
- · Practice with valuable resources that enrich middle-school students' classroom and field experiences
- Focus on issues and environmental subjects included in the Virginia Science Standards of Learning

Middle-school science teachers (grades 6-8) are urged to sign up today! Course (including four graduate credit hours, two weeks of housing and meals, extensive materials) is just \$500 thanks to sponsor support. Call Dr. Pat Lust at Longwood University (434-395-2049) for details. For more information: Flyer (PDF): <a href="http://www.longwood.edu/hullspringsfarm/images/solstice\_course\_flyer2011.pdf">http://www.longwood.edu/hullspringsfarm/images/solstice\_course\_flyer2011.pdf</a>. Agenda, Personnel, Sponsors and more information: <a href="http://www.longwood.edu/liberalstudies/33955.htm">http://www.longwood.edu/liberalstudies/33955.htm</a>. To apply: <a href="http://www.vanaturally.com/vanaturally/bayacademy.html">http://www.vanaturally.com/vanaturally/bayacademy.html</a>

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# WATERSHED TECHNICAL ASSISTANCE

# The Conservation Fund and Green Infrastructure

Just as we need smart growth to strategically direct development, we need "smart conservation." Smart conservation allows communities to grow while maintaining a healthy environment. That's green infrastructure. Infrastructure is often thought of in terms of highways and power grids or gas pipelines. This infrastructure allows people to commute to work, watch television, and use washing machines without having to worry about how or what makes this possible. In much the same way, green infrastructure provides crucial services, such as clean air, drinking water and local food, to communities. These are known as ecosystem services. Green infrastructure planning identifies areas where nature is benefiting communities and ensures those areas are protected. In recent years, the term "green infrastructure" has been used to refer to everything from green roofs to more ecologically friendly stormwater management systems. While these definitions differ, they all underscore that our built environment and our ecological environment are connected. At The Conservation Fund, we see green infrastructure as a network of natural areas and open spaces—woodlands, wetlands, trails and parks—that conserves ecosystems, helps sustain clean air and water and provides many other benefits to people and wildlife. Learn more... http://www.conservationfund.org/green\_infrastructure

# Open Channelization of a Roadway Culvert System - Assessing wildlife benefits

Anthropogenic land-use changes to riparian wetlands in urban settings result in scale-specific animal responses (Mensing et al. 1998; Nerbonne and Vondracek 2001). This includes disturbances to natural streambeds and engineered stormwater structures (e.g., culverts and open channels) intended to divert or change water flow velocity with the construction of roadways and crossings. The term open channel is used in this article to distinguish it from naturally occurring stream channels. Both culverts and open channels involve different design considerations. Culvert engineering primarily involves hydrological calculations (e.g., peak discharge, minimum and maximum velocity, runoff and drainage amounts, and headwater depth) and design factors (e.g., type, roughness, size, length, and slope). Culverts can be placed within natural stream channels to control water flow or alternatively open channels are used. Channel engineering also involves similar hydrological calculations; however, it must also consider the channel roughness related to whether it will be an unlined, concrete lined, or grass-drainage channel. In open channel designs, the size, slope, and shape of the bottom and sides must be factored to avoid stream sediment erosion, erosion not being a factor for culverts except at the outlet/discharge, where it can be reduced by placing a splash pad. Whereas culverts are not intended to function as a best management practice (BMP) or improve water quality of collected stormwater or runoff, channels can have such intent. Additionally, the design of an open channel might also include the restoration of a streambed to mimic natural conditions after its location to provide suitable habitat for aquatic animals. The disturbance history of a stream channel can change the benthic macroinvertebrate fauna inhabiting a streambed, particularly if flooding results in sediment scour or fill (Matthaei and Townsend 2000, Effenberger et al. 2006). Additionally, BMPs can change instream physical habitat variables (e.g., sedimentation, bank stability, and embeddedness of substrate), and therefore invertebrate and fish assemblages (Nerbonne and Vondracek 2001). Whereas information regarding the construction of BMPs and their stormwater management benefits (e.g., pollution reduction, runoff volume reduction, stream channel protection, and peak flow control) are discussed in US stormwater quality manuals (e.g., Connecticut Department of Environmental Protection 2004), they lack specific information on the post-construction effects of structures on aquatic biota. Biomonitoring that is required from US federal or state wetland permitting tends to focus on mitigation areas rather than impact sites. The culverting and open channelization of rivers and streams is most often the focus of fisheries, civil engineering, stream restoration and bank stabilization, and flood control projects in urban environments (Riley 1998). Where the water quality of culverted or channeled streams is measured, Rapid Bioassessment Protocols (RBPs) (Plafkin et al. 1989) provide one tool to assess the potential threat of pollution to aquatic indicator animals, such as freshwater benthic macroinvertebrates. Comparing macroinvertebrate occurrences is useful to assess local land-use management and BMPs and their potential effects on stream biota among sites (Whiles et al. 2000, Nerbonne and Vondracek 2001). Because they are sensitive to disturbance and water pollution, macroinvertebrates can indicate habitat quality and a stream's suitability to support the different life stages of aquatic animals. During the inland wetlands and watercourses permitting process, the impact that a proposed placement of culvert or channel has on wetland functions and resources is considered. Although the specific effects of a structure on a protected animal species can be a consideration, the potential effect on a species guild or the common aquatic animals that are part of localized stream ecology may not warrant review or be prudent to assess. More often the effects of channelization on aquatic animals is the focus of restoration ecology and fisheries (Brooker 1985, Henegar and Harmon 1971, Whitaker et al. 1979, Nakano and Nakamura 2006) rather than BMPs guiding land development and land-use decision making (Burton et al. 2005). A historic open channel located in the urban environment of Middlebury, CT, provided the opportunity to assess the long-term stream effects from open channelization on aquatic biota. The goals of this study were to: 1) evaluate the impact of disturbance history of the Wooster Brook Open Channel (WBOC) in west central Connecticut by surveying its macroinvertebrate community, and 2) use this information to guide the design of open channels in urbanized streams. The effects of open channelization on habitat quality and biota were evaluated in the fall of 2000, 2001, 2003, 2004, and 2007. This habitat

evaluation involved three parts: 1) water-quality testing, 2) RBP for wadeable streams, and 3) vegetation and wildlife surveys. The habitat evaluation made it possible to assess whether the open channelization of Wooster Brook mimics local natural conditions and has comparable water quality supporting wildlife. Read article... <a href="http://www.stormh2o.com/may-2011/open-channelization-of.aspx">http://www.stormh2o.com/may-2011/open-channelization-of.aspx</a>

#### About A Sustainable Chesapeake

A Sustainable Chesapeake: Better Models for Conservation provides an important conservation resource for individuals, organizations, governments and businesses across the Chesapeake Bay watershed. This new book profiles promising conservation practices and technologies and describes the protection of critical land and water resources. Thirty-one case studies feature the work of government and private organizations and conservation leaders throughout the Bay watershed. The book's six chapters—Climate Change Solutions, Stream Restoration, Green Infrastructure, Incentive Driven Conservation, Watershed Protection, and Stewardship—are each introduced with a summary of the restoration principles learned from the projects. The book was developed by David Burke, an experienced conservation planner, and Joel Dunn, Program Coordinator of The Conservation Fund's Sustainable Chesapeake initiative. The initiative builds on The Conservation Fund's record of land and water conservation with tools that lead to smarter conservation and development, increases the capacity of regional groups and agencies to solve conservation issues and demonstrates sustainable economies. The case studies show the many dimensions of land and water conservation through a standardized, user-friendly format that includes photos, diagrams, tables, facts and concepts that people and organizations can draw from to solve local conservation challenges. Download your copy of A Sustainable Chesapeake at <a href="http://www.conservationfund.org/sustainable-chesapeake">http://www.conservationfund.org/sustainable-chesapeake</a>. You may select individual case studies, chapters or the entire publication as PDF files.

# ICMA 2010 Sustainability Survey Results

ICMA conducted a survey of local government action on sustainability issues, including water, energy, transportation, recycling, and more. Over two-thousand local government responded. <a href="http://icma.org/Documents/Document/301646">http://icma.org/Documents/Document/Jocument/301646</a>

# Free Training on How to Comply with MS4 Water Quality Requirements

Want to learn how to find and fix illicit discharges and connections? How to develop an effective municipal stormwater program for construction sites? What you need to know about the industrial stormwater general permit? The NPDES Permitting program offers training courses, workshops, and webcasts to explain the regulatory framework and technical considerations of the NPDES Permit program. These courses are designed for permit writers, dischargers, EPA officials, and other interested parties. <a href="http://cfpub2.epa.gov/npdes/outreach.cfm?program\_id=0&otype=1">http://cfpub2.epa.gov/npdes/outreach.cfm?program\_id=0&otype=1</a>

# "Waters of the U.S." Proposed Guidance Americans depend on clean and abundant water.

Over the past decade, interpretations of Supreme Court rulings removed some critical waters from Federal protection, and caused confusion about which waters and wetlands are protected under the Clean Water Act. As a result, important waters now lack clear protection under the law, and businesses and regulators face uncertainty and delay. The Obama Administration is committed to protecting waters on which the health of people, the economy and ecosystems depend. U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers have developed draft guidance for determining whether a waterway, water body, or wetland is protected by the Clean Water Act. This guidance would replace previous guidance to reaffirm protection for critical waters. It also will provide clearer, more predictable guidelines for determining which water bodies are protected by the Clean Water Act. The draft guidance will reaffirm protections for small streams that feed into larger streams, rivers, bays and coastal waters. It will also reaffirm protection for wetlands that filter pollution and help protect communities from flooding. Discharging pollution into protected waters (e.g., dumping sewage, contaminants, or industrial pollution) or filling protected waters and wetlands (e.g., building a housing development or a parking lot) require permits. This guidance will keep safe the streams and wetlands that affect the quality of the water used for drinking, swimming, fishing, farming, manufacturing, tourism and other activities essential to the American economy and quality of life. It also will provide regulatory clarity, predictability, consistency and transparency. The draft guidance will be open for 60 days of public comment to allow all stakeholders to provide input and feedback before it is finalized. Read more at <a href="http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm">http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm</a>

#### EPA Launches New Strategy to Promote Use of Green Infrastructure for Environmental and Economic Benefits

The U.S. Environmental Protection Agency (EPA) is launching a new strategy to promote the use of green infrastructure by cities and towns to reduce stormwater runoff that pollutes the nation's streams, creeks, rivers, lakes and coastal waters. Green infrastructure decreases pollution to local waterways by treating rain where it falls and keeping polluted stormwater from entering sewer systems. In addition to protecting Americans' health by decreasing water pollution, green infrastructure provides many community benefits including increased economic activity and neighborhood revitalization, job creation, energy savings and increased recreational and green space. Large volumes of polluted stormwater degrade the nation's rivers, lakes and aquatic habitats and contribute to downstream flooding. Green infrastructure captures and filters pollutants by passing stormwater through soils and retaining it on site. Effective green infrastructure tools and techniques include green roofs, permeable materials, alternative designs for streets and buildings, trees, rain gardens and rain harvesting systems. As part of the strategy, EPA will work with partners including local governments, watershed groups, tribes and others in ten cities that have utilized green infrastructure and have plans for additional projects. EPA will encourage and support expanded use of green infrastructure in these cities and highlight them as models for other municipalities around the country. The ten cities are: Austin, TX; Boston, MA; Cleveland, OH; Denver, CO; Jacksonville, FL.; Kansas City, MO.; Los Angeles, CA; Puyallup, WA; Syracuse, N.Y.; and Washington, D.C. and neighboring Anacostia Watershed communities. EPA will continue to work with other federal agencies, state and local governments, tribes, municipalities, and the private sector to identify opportunities for using green infrastructure and provide assistance to communities implementing green approaches to control stormwater. EPA will also provide additional tools to help states and communities leverage green infrastructure opportunities within other innovative environmental projects. For more information on EPA's green infrastructure agenda: http://epa.gov/greeninfrastructure

# A Perfect Storm for a Regional Watershed Management Plan - An alternative to site-based LID

The small Colorado towns of Silver Cliff and Westcliffe, along with the Round Mountain Water and Sanitation District, and with the assistance of consultants Crabtree Group Inc. (CGI), civil engineers and town planners of Salida, CO, (members of the Congress for the New Urbanism) integrated cutting-edge town planning and rainwater treatment techniques to address acute flooding issues. Because Bob Squire, the town

manager for the Town of Westcliffe, garnered the support of adjacent jurisdictions, CGI was able to leverage that cooperative spirit into a regional watershed management plan, and that scale brought many more opportunities for watershed improvement than site-level-only approaches. Learn more... <a href="http://www.stormh2o.com/may-2011/a-perfect-storm.aspx">http://www.stormh2o.com/may-2011/a-perfect-storm.aspx</a>.

#### Penn State Agriculture and Environment Center has posted new Extension and Research resources on our website:

- From the <u>Lessons from the Land</u> webinar series –Pennsylvania's successes across the landscape in watershed management and water quality improvements are showcased. The intent of this series is to increase dissemination and transfer of innovative approaches that communities and organizations have underway. Available are:
  - Monitoring Marcellus in Small Streams A presentation by Julie Vastine (Dickinson College ALLARM) and Julie Kollar (Water Resources Education Network)
  - The Lycoming County Experience: TMDLS, Farms, WWTPs and Innovations in Environmental Markets Presented by Marel Raub (Chesapeake Bay Commission) and Megan Lehman (Lycoming County Planning Office)
  - Calendar of upcoming events.
- From the <u>Innovating Policy for the Chesapeake Bay Restoration</u> conference, held March 29, 2011 in Cambridge, MD, the following scientific, technical, and policy presentations are now available, including:
  - o The Chesapeake Bay TMDL Rich Batiuk, US EPA Chesapeake Bay Program
  - o Implications of the Certainty of Confronting Uncertainty in TMDLs Carl Hershner, Virginia Institute of Marine Sciences
  - o Benefits, Costs, and Bay Restoration Ted McConnell, University of MD
  - o Incentivizing Pollution Control in Agriculture Marc Ribaudo, USDA ERS
  - Does Regulating Farmers Work? Michelle Perez, World Resources Institute
  - o Improving Efficiency and Effectiveness of Agri-environmental Policies for the Chesapeake Bay Jim Shortle, Penn State University
  - Beyond Trading: Practical Applications of Market Principles for Water Quality Management Leonard Shabman, Resources for the Future
  - Allocating Pollution Load Reductions Between States Anthony Kwasnica, Penn State University

#### Bay Farms On-Farm Network - Making Conservation Pay

Better information is critical to better farm management. Without good information, it is very difficult to manage agricultural resources such as nitrogen and phosphorus for economic viability and environmental sustainability. This is especially true for farmers facing important water quality challenges combined with ever escalating nitrogen and fuel costs on the farm. In addition to enabling and fostering improved environmental viability and profitability, better farm management data collection and analysis enables farmers to assess and verify their performance, which will give them better access to emerging marketplace initiatives, such as nutrient and carbon trading, niche marketing, and other ecosystem service payment opportunities. The goal of the Bay Farms On Farm Network is advance two critical components to driving improved farm-level performance. Read More... <a href="http://www.bayonfarmnetwork.org/">http://www.bayonfarmnetwork.org/</a>