

# WAY E-NEWS

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



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A PUBLIC-PRIVATE PARTNERSHIP

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**INSIDE THIS ISSUE...**

**WATERSHED ALLIANCE OF YORK...2**

**WATERSHED EDUCATION & OUTREACH...Page 3**

- Controlling Erosion Damage On Streambanks
- StreamWatch Land Use Study
- Little Improvement in Minnesota River Basin Over the Past 20 Years
- BREAKING NEWS: If you care about clean water, you need to pay attention
- Source Water Collaborative Updates Website
- Home Washing Machines: Source of Potentially Harmful Ocean 'Microplastic' Pollution
- Visit EPA's Water is Worth It Facebook Page and Follow our Water Tweets
- Interesting Facts about Water

**WATERSHED FINANCIAL ASSISTANCE...Page 5**

- Department of Agriculture Nov 22
- National Gardening Association: Youth Garden Grants – Nov 28
- AMERICAN RIVERS-NOAA Community-based Restoration Program Partnership Grants – Dec 9
- DEP Offers Emergency Storm Relief Grant Funding for Small Businesses – Dec 31

**WATERSHED FACILITATION ASSISTANCE...Page 6**

- National Drug Take Back Day - Oct 29
- 9th Annual Lancaster/Lebanon County Watershed Forum – Oct 29
- Design Solutions to Stormwater Management – Take the mystery out of BMPs and TMDLs
- Cover Crop & Manure Incorporation Field Day – Nov 9
- GREENFIRE IS Coming to York County! – Nov 10
- Lancaster Clean Water Consortium Adds Municipal MS4 Workshop – Nov 15
- Partners in Community Forestry Conference – Nov 15-17
- Wet Weather Issues: Piped and Un-Piped – Nov 15
- Build Cleaner and Greener Workshop – Nov 17
- Turning a New Leaf Sustainable Landscaping Conference – Dec 2
- Center Webcast: Stream Restoration – Dec 7
- 2011 Information Exchange: Making Projects Successful in a Changing Climate – Dec 13
- Stormwater Symposium 2012

**WATERSHED TECHNICAL ASSISTANCE...Page 7**

- PA NRCS Releases Conservation Planning, Regulatory Compliance Guidance
- U.S. Rivers and Streams Saturated With Carbon
- Using Watershed Planning to Meet Local and Bay-Wide TMDL Goals
- Severe Drought, Other Changes Can Cause Permanent Ecosystem Disruption
- Forest Structure, Services and Biodiversity May Be Lost Even as Form Remains
- Ammonia Air Pollution from Cars and Trucks Worse in Winter
- NRCS says Great Lakes conservation is working
- Farm subsidies birds and fish would choose
- Cover crops preacher brings message to Minnesota
- Study reveals true diversity of life in soils across the globe; new species discovered
- Weather changes increase need for conservation measures
- PENNVEST Nutrient Credit Clearinghouse Rulebook
- EPA Proposes to Collect Information about Concentrated Animal Feeding Operations  
Report: Status of Trends of Wetlands in the Conterminous United States 2004 - 2009

**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 OF YORK

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

[Brunner Island Environmental Preserve](http://www.pplpreserves.com) - [www.pplpreserves.com](http://www.pplpreserves.com)

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

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

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

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

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

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

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

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

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

[Holtwood Environmental Preserve](http://www.pplpreserves.com) - [www.pplpreserves.com](http://www.pplpreserves.com)

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

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

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

[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](http://www.dnr.state.md.us/bay/tribstrat/upper_west/up_west_shore.html)

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

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

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

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

Reel to Real York (R2RY): Sustainable Film Partnership of York County

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

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

[Sonnewald Natural Foods](http://www.sonnewald.org/) - [www.sonnewald.org/](http://www.sonnewald.org/)

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

[Sunnyside Farm CSA](http://www.sunny-side-farm.com/) - <http://www.sunny-side-farm.com/>

[Susquehanna Gateway Heritage Area](http://www.susquehannaheritage.org/) - <http://www.susquehannaheritage.org/>

[Susquehanna Greenway Partnership](http://www.susquehannagreenway.org) - [www.susquehannagreenway.org](http://www.susquehannagreenway.org)

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

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

[Watershed Alliance of Adams County](http://www.adamswatersheds.org/) - <http://www.adamswatersheds.org/>

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

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

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

[York Audubon Society](http://www.yorkaudubon.org/) - <http://www.yorkaudubon.org/>

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

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

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

[York County Solid Waste & Refuse Authority](http://www.ycswa.org/) - [www.ycswa.org/](http://www.ycswa.org/)

York County TMDL Work Group



## **WATERSHED EDUCATION & OUTREACH**

### **Controlling Erosion Damage On Streambanks**

The storms and floods we have experienced this past summer have damaged many properties across Pennsylvania. As a private land owner, your storm damage management should involve a quick assessment to determine the extent of the damage and what management efforts are needed to restore your land. In addition to determining damage to your buildings, trees, crops and access roads, you should also do an assessment of any major erosion problems caused by the storms and flooding. This is particularly important if you have a stream on your property. Walk your property and note the extent of the damage on your maps or photos. Draw boundaries to help determine the size of the area impacted. Examine the banks of your streams for erosion damage. If you have any erosion control practices already in place such as riprap or gabions, check them for damage or any maintenance that may be needed. Stream blockages, eroded stream banks, and accumulated debris can present significant problems in the aftermath of a flood. The removal of debris and blockages from streams and any work to stabilize stream banks must be carefully planned. Working in or near a stream, other than to remove floatable debris requires permits from the Department of Environmental Protection. Floatable debris that becomes lodged in critical areas of streams can be removed without permits provided that the work can be done without entering the flowing water with equipment. The use of cables and chains or backhoe arms to reach into the area and remove the debris is allowed. The DEP recently released a fact sheet called "[Permitting Options for Flood-Damaged Bridges and Other Water Obstructions and Encroachments](#)" which is available on-line. Contact your regional DEP office for additional information. You can also contact your county conservation district to determine what permits are needed to do "in-stream" work. Your county conservation district may also be able to provide you technical assistance with planning and implementing streambank stabilization techniques. Another good source for information and assistance can be a local watershed association. If you have streambanks that are severely eroded, you'll need to stabilize the soil to promote plant growth. There are three general streambank stabilization approaches you might consider. They are live planting, bioengineering, and hard armoring. The best technique will depend on the size and location of your stream, and the cause and severity of the erosion. In many cases, the best approach is to use a combination of techniques.

You may be able to stabilize streambanks or prevent erosion problems by planting appropriate types of vegetation, then allowing nature to heal itself. A small investment of time and money can prevent a serious erosion problem that in the future could be very expensive to correct. Bioengineering relies on a combination of structural components and plant material to produce a dense stand of vegetation that serves as a "living system" to protect streambanks. Hard armoring includes a variety of techniques including rock rip-rap (large stones placed along the slope of a streambank) and gabions (rock-filled wire baskets placed along a streambank). Hard armoring typically involves grading the bank to a gentler slope. If done properly, these techniques provide very good protection and will work in severe situations where bioengineering will not. However, hard armoring techniques can be relatively expensive, and may require professional assistance. Stabilizing stream banks can prevent the loss of land or damage to utilities, roads, buildings or other facilities adjacent to a watercourse. It helps prevent the loss of stream bank vegetation and can control unwanted meander of a river or stream. It can reduce sediment loads to streams and help maintain the capacity of the stream channel. Streambank stabilization can improve the stream for recreational use or as habitat for fish and wildlife. By controlling erosion through streambank stabilization, you can help protect the quality of the water that flows from your property. Written By: George Hurd, Environmental/Resource Development Educator, Penn State Extension, Franklin County (*Reprinted from the Penn State Extension [Watershed Winds](#) online newsletter.*)

### **StreamWatch Land Use Study**

The environmental monitoring organization StreamWatch has released a study showing that development and deforestation dramatically impact the biological health of rural and semi-rural streams. The study focused on the Rivanna River basin, which encompasses Charlottesville and its surrounds. Among the key findings:

- Rivanna streams begin to fail the Virginia biological water quality standard at an early stage of the land disturbance process. Most of the Rivanna basin is exurban, with about 17 acres per dwelling. This amount of disturbance may seem mild, yet more than half of exurban streams failed the standard.
- Rural and exurban streams decline rapidly with increased development or deforestation. In urban areas, stream health is already poor. Therefore, urban streams do not respond dramatically to additional development.
- Only about one-third of Rivanna streams are healthy enough to meet the Virginia standard. In 20 years, that number could be reduced to one-fifth based on projected land use changes.
- Unlike development and deforestation, cattle operations, quantified at the watershed scale, did not have a big impact on stream health. However, StreamWatch did not study the effects of cattle located close to streams.
- Forested buffers alongside streams can protect and improve stream health.

The study was conducted over the course of four years with the help of environmental scientists at the University of Virginia and James Madison University, contributions from environmental professionals throughout the region, and about 100 citizen volunteers. StreamWatch studies and monitors streams to supply high-quality scientific information to the community and decision-makers. In the interest of providing unbiased information, StreamWatch does not make management or policy recommendations. For more information, please read the Study Highlights, or visit our website [www.streamwatch.org](http://www.streamwatch.org).

### **Little Improvement in Minnesota River Basin Over the Past 20 Years – Tony M. Guerrieri, Research Analyst**

The Minnesota River Basin encompasses part or all of 38 counties, contains 13 major watersheds, and drains nearly 20 percent of Minnesota. The Minnesota River and its accompanying watersheds are 335 miles long, draining approximately 16,770 miles (approximately 10 million acres). After two decades of cleanup efforts the Minnesota River and its tributaries are not much better than they were in 1990, according to a report by the Minnesota Pollution Control Agency (MPCA). The report, "*Revisiting the Minnesota River Assessment Project*", provides an update on the condition of fish and invertebrates (e.g., aquatic insects, snails, and mussels) in streams of the Minnesota River basin. More than 20 years ago, biological communities in the Minnesota River basin – which is 78 percent farm fields and 22 percent urban, forest and grassland – were determined to be severely to moderately impaired due to a myriad of factors. Moving through the heart of the state's agricultural area, the Minnesota River has long been plagued by high levels of silt, fertilizer runoff and other pollutants. The report listed as likely culprits the widespread use of ditches and farm drainage systems and run-off from cities, specifically mentioning "fast growing metropolitan areas." To address the deteriorating conditions, advisory committees were formed, conservation programs were developed, and

best management practices were implemented. Numerous strategies such as building more buffers between agricultural land and rivers and streams as well as reducing pollution from large sources have been tried. The report compares previous results from the early 1990s with data from 2009-10 to see if conservation strategies to address problems identified by earlier reviews are working. To produce the most recent assessment, researchers went back to 114 of the same sites they visited 20 years ago to count fish and 33 sites to count insects – both important measures of the river's health. The MPCA report concludes that there has been a lack of significant improvement over the past two decades in the health of aquatic life in the river basin despite political attention on the polluted waterway and substantial efforts to clean it up. According to the report, some of the river's headwater creeks have more varieties of fish, but smaller creatures such as the aquatic insects that make up the bottom of the food chain are still not back, and the fish are as scarce as ever in the main streams and the river itself. Over the past 20 years, the MPCA found slight improvements in fish populations, including the return of smallmouth bass, walleye and pollution-sensitive fish such as the blue sucker and sturgeon. The number of sturgeon jumped from 11 to 19, smallmouth bass rose from 24 to 43 and walleye increased from 141 to 153. The news was bad when it came to macroinvertebrates, creatures without backbones but large enough to see with the naked eye, that make up a crucial part of the food chain. Macroinvertebrates include aquatic insects like mayflies, caddisflies, midges, and beetles as well as crayfish, worms, mussels and snails. Looking at ditches and small streams, the report notes a decline in macroinvertebrates in 75 percent of the sites sampled and found that, overall, "large and small river sites had significantly decreased biological condition over the 20 year period." It also found no correlation between the number and variety of invertebrates and the use of best management practices or Conservation Reserve Enhancement Program acres. The report suggests there is little evidence that cleanup measures have helped much. It concludes more and better-targeted conservation efforts and water management practices are needed. The MPCA report is available at: <http://www.pca.state.mn.us/index.php/view-document.html?gid=15821>.

### **BREAKING NEWS: If you care about clean water, you need to pay attention**

As part of federal budget-cutting efforts, several members of Congress are currently drafting a new, reduced five-year Farm Bill. Their recommendation is due to the "Super Committee" by Nov. 1, after which it could become law with little debate or amendment. This will be the fastest Farm Bill decision-making process in history—a process that usually takes a year will be done in mere days—and will likely result in significant cuts to critical conservation programs. And, only once every five years do we truly have an opportunity to [let Congress know how critical this "clean water" funding is for Pennsylvania's rivers and streams that lead to the Chesapeake Bay](#). At risk are conservation programs for farmers, like the [Chesapeake Bay Watershed Initiative](#), that offer the region's farmers tools to reduce pollution, while improving the farm's bottom line. Thriving, well-managed farmlands are especially important in the Chesapeake Bay region because they are vital to the long-term health of the Chesapeake and its rivers and streams, contribute significantly to the region's economy, and create jobs that stay here at home. According to the Pennsylvania Department of Agriculture, Pennsylvania's agriculture industry generates more than \$6 billion annually with 63,000 families working 7.7 million acres of land. Protecting this funding in the Farm Bill means not only an opportunity for cleaner streams and healthier rivers in Pennsylvania, but a saved Chesapeake Bay for our entire region. [Please act today for a chance to save critical funding for clean water in the Chesapeake Bay Watershed](#). Thank you, Kim Patten, Pennsylvania Outreach and Advocacy Manager, Chesapeake Bay Foundation. P.S. More dollars for "clean water" come to our rivers and streams from the Federal Farm Bill than from any other single piece of federal legislation. We all need to do our part to save the Bay, and the time is now. Please forward this important message to your friends and post it to your [Facebook](#) wall.

### **Source Water Collaborative Updates Website**

The Source Water Collaborative (SWC), a group of 23 national organizations—including the National Environmental Services Center—united to protect America's drinking water at the source, has updated their website. Also featured is the "Create Your Own Guide," a free tool to create a guide encouraging local officials to connect with best practices, people, and other resources that can help them protect their sources of drinking water. Formed in 2006, the SWC's goal is to combine the strengths and tools of a diverse set of member organizations to act now, and protect drinking water sources for generations to come. Learn more by visiting the SWC website at [www.sourcewatercollaborative.org](http://www.sourcewatercollaborative.org).

### **Home Washing Machines: Source of Potentially Harmful Ocean 'Microplastic' Pollution**

ScienceDaily (Oct. 20, 2011) — Scientists are reporting that household washing machines seem to be a major source of so-called "microplastic" pollution – bits of polyester and acrylic smaller than the head of a pin – that they now have detected on ocean shorelines worldwide. Their report describing this potentially harmful material appears in ACS' journal *Environmental Science & Technology*. Mark Browne and colleagues explain that the accumulation of microplastic debris in marine environments has raised health and safety concerns. The bits of plastic contain potentially harmful ingredients which go into the bodies of animals and could be transferred to people who consume fish. Ingested microplastic can transfer and persist into their cells for months. How big is the problem of microplastic contamination? Where are these materials coming from? To answer those questions, the scientists looked for microplastic contamination along 18 coasts around the world and did some detective work to track down a likely source of this contamination. They found more microplastic on shores in densely populated areas, and identified an important source – wastewater from household washing machines. They point out that more than 1,900 fibers can rinse off of a single garment during a wash cycle, and these fibers look just like the microplastic debris on shorelines. The problem, they say, is likely to intensify in the future, and the report suggests solutions: "Designers of clothing and washing machines should consider the need to reduce the release of fibers into wastewater and research is needed to develop methods for removing microplastic from sewage." The authors acknowledge funding from Leverhulme Trust, EICC (University of Sydney) and Hornsby Shire Council.

### **Visit EPA's Water is Worth It Facebook Page and Follow our Water Tweets**

The U.S. Environmental Protection Agency's (EPA) Office of Water will be sharing news, events and information of interest through Facebook and Twitter. Find out what EPA and partners are doing to protect human health and the environment. Visit EPA's Water Is Worth It Facebook page, <http://www.facebook.com/EPAWaterIsWorthIt>, and follow our tweets at <http://twitter.com/epaowow>

## **Interesting Facts about Water**

- To manufacture one car, including tires, 147,972 liters of water are used.
- 13% of municipal piped water is lost in pipeline leaks.
- The human brain is 75% water.
- Outdoor watering uses 35 liters of water each minute (over 9 gallons).
- One drop of oil can make up to 25 liters of water unfit for drinking.
- Half of world's wetlands have been lost since 1900.
- Each year, over 89 billion liters of bottled water are sold.

For more interesting water facts, visit [aquarius-systems.com](http://aquarius-systems.com)



## **WATERSHED FINANCIAL ASSISTANCE**

### **Department of Agriculture Nov 22**

The Beginning Farmer and Rancher Development Program provides support for activities to enhance food security by providing beginning farmer and rancher producers and their families in the U.S. and its territories with the knowledge, skills, and tools needed to make informed decisions for their operations, and enhance their sustainability. Other goals include enhanced sustainability of resources and consistent availability of inputs for biofuel production. Proposed partnerships and collaborations that are led by or include non-governmental organizations and community-based organizations with expertise in new agricultural producer training and outreach will be given priority in funding. Inclusion of beginning and/or non-beginning farmers and ranchers as part of the collaborative group is strongly encouraged. The application deadline is November 22, 2011. <http://www.nifa.usda.gov/fo/beginningfarmerandrancher.cfm>

### **National Gardening Association: Youth Garden Grants – Nov 28**

The National Gardening Association (NGA), with support from The Home Depot, will award Youth Garden Grants to 100 schools and community organizations throughout the U.S. with child-centered garden programs. Priority will be given to programs that emphasize one or more of these elements: educational focus or curricular/program integration; nutrition or plant-to-food connections; environmental awareness/education; entrepreneurship; and social aspects of gardening such as leadership development, team building, community support, or service-learning. Applicant schools and organizations must plan to garden with at least 15 children between the ages of 3 and 18. Five programs will receive gift cards valued at \$1,000 (a \$500 gift card to The Home Depot and a \$500 gift card to the Gardening with Kids catalog); 95 programs will receive a \$500 gift card to The Home Depot. All winners will receive educational materials from NGA. The application deadline is November 28, 2011. Application guidelines and forms are available on the NGA website.

<http://www.kidsgardening.org/grants/2012-youth-garden-grants-1>

### **AMERICAN RIVERS-NOAA Community-based Restoration Program Partnership Grants – Dec 9**

American Rivers seeks proposals for river restoration project grants as part of its partnership with the National Oceanic and Atmospheric Administration (NOAA) Community-based Restoration Program. This Partnership funds stream barrier removal projects that help restore riverine ecosystems, enhance public safety and community resilience, and have clear and identifiable benefits to diadromous fish populations. [Diadromous fish migrate between freshwater and saltwater during their life cycle. Examples include alewife, American shad, American eel, salmon, steelhead and shortnose sturgeon.] Projects in the Northeast (ME, NH, VT, MA, CT, RI), Mid-Atlantic (NY, NJ, PA, DE, VA, MD, DC), Northwest (WA, OR, ID), South-Atlantic (NC, SC, GA, FL) and California are eligible to apply. Eligible applications will be evaluated based upon four priority criteria: (1) ecological merits of the project, (2) technical feasibility of the project, (3) benefits provided to the local community, and (4) financial clarity and strength of the application. Grants are provided for three distinct project phases: Construction, Engineering Design and Feasibility Analysis. Proposals for Construction phase funding may request a maximum award of \$150,000. Proposals for Engineering Design or Feasibility Analysis phases may request a maximum award of \$100,000. Proposals requesting more than the maximum allowable amounts will be rejected. Successful applicants for one project phase will not be eligible to receive additional funding for that same project phase in future grant rounds. See the Funding Guidelines for more details. Applications are currently being accepted for 2012 project funding with a deadline of December 9, 2011. Applications for projects must be received by the deadline for consideration in this funding cycle. Potential applicants must contact American Rivers to discuss projects prior to submitting an application. See Funding Guidelines for additional details. Applicants can expect notification about funding decisions in March 2012. Obtain the Application for Financial Assistance and Funding Guidelines on the American Rivers web site [www.americanrivers.org/NOAAGrants](http://www.americanrivers.org/NOAAGrants) or contact the region-specific staff listed below. Applicants must contact American Rivers to discuss the potential project prior to submitting an application. Select your appropriate regional contact below: Mid-Atlantic (DE, NJ, PA): Laura Craig, 856-786-9000

### **DEP Offers Emergency Storm Relief Grant Funding for Small Businesses – Dec 31**

HARRISBURG – The Department of Environmental Protection today announced emergency funding that will help flood-affected small businesses in 33 counties to make energy efficiency and pollution prevention improvements. Projects eligible for 50-percent reimbursement grants of up to \$9,500 could include high-efficiency lighting systems, building insulation, air sealing, recycling and reuse systems, and new water-conservation technologies. Grants are available to for-profit small-business owners whose facilities are in counties that were declared eligible for disaster relief by the Federal Emergency Management Agency (FEMA). All types of small businesses qualify for funding, including manufacturers, retailers, service providers, mining businesses and agricultural outfits. About \$400,000 total is available and comes from the state's Hazardous Sites Cleanup Act. Costs incurred between Aug. 26 and Dec. 31, 2011, are eligible for grant consideration. The grant application package contains the materials and instructions necessary for applying. Applications must be postmarked or hand-delivered by 4 p.m. on Dec. 31. Faxes or other electronic submissions will not be accepted. Small-business owners who want to review the program's eligibility requirements can contact the Office of the Small Business Ombudsman at 717-772-8909. Copies of the application are also

available at the Ombudsman's Office in the Rachel Carson State Office Building, 400 Market St., Harrisburg. Applications are also available on DEP's website at [www.dep.state.pa.us](http://www.dep.state.pa.us). To ask a specific question concerning a project, potential applicants should call the number listed above or email [epadventuregrant@pa.gov](mailto:epadventuregrant@pa.gov) before submitting an application. Media Contact: Lisa Kasianowitz, 717-787-1323  
Editor's Note: A map and list of eligible counties can be found at [www.fema.gov](http://www.fema.gov). They are Adams, Bedford, Berks, Bradford, Bucks, Chester, Columbia, Cumberland, Dauphin, Delaware, Huntingdon, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Monroe, Montgomery, Montour, Northampton, Northumberland, Perry, Philadelphia, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming and York.

## **WATERSHED FACILITATION ASSISTANCE**

### **National Drug Take Back Day - Oct 29**

On Saturday, October 29, 2011 The Drug Enforcement Administration (DEA) is hosting its third National Drug Take Back Day on Saturday, October 29, 2011 at many local law enforcement offices and other locations across the country. Proper and safe disposal of medicine can help prevent: poisoning of children and pets; misuse by teenagers and adults; health problems from accidentally taking the wrong medicine, too much of the same medicine or medicine too old to work well; and medicines from entering rivers, lakes and streams. To find a collection site near you, visit [http://www.deadiversion.usdoj.gov/drug\\_disposal/takeback/index.html](http://www.deadiversion.usdoj.gov/drug_disposal/takeback/index.html). The national number to call for the nearest National Take Back Initiative location is: 1-800-882-9539.

### **9<sup>th</sup> Annual Lancaster/Lebanon County Watershed Forum – Oct 29**

This year's event will take place on Saturday, October 29<sup>th</sup> here in Lancaster. Thanks to some timely funding, once again this year's event will be free for all participants and a breakfast will be served to all that register. We have some great speakers lined up for this 9<sup>th</sup> Annual event so we hope you will attend. Matthew, W. Kofroth, Watershed Coordinator, Farm & Home Center, 1383 Arcadia Rd., Room #200, Lancaster, PA 17601. Phone (717) 299-5361 ext 124

### **Design Solutions to Stormwater Management – Take the mystery out of BMPs, TMDLs and other acronyms**

This workshop is sponsored by the Alliance for the Chesapeake Bay and the Yellow Breeches Watershed Association. Financial support is provided through funding from the U.S. Environmental Protection Agency, administered by the National Fish and Wildlife Foundation. A workshop for engineers, landscapers, corporate and school grounds managers and municipal staff. *3.75 CEU credits available*. November 7 2011, 7:30 a.m. to 1:30 p.m. \$20–Lunch and morning coffee included. Sporting Hill Elementary School Gym, 210 S. Sporting Hill Road Mechanicsburg, PA 17050.

- Hands-On Workshop Sporting Hill Elementary School's NEW Bioretention Basin
- Cedar Run Watershed Assessment and Stormwater Inventory
- TMDLs from your stream to the BAY
- BMPs and Watershed-Wide Planning
- Design Considerations for Karst Terrain

Register online [www.allianceforthebay.org](http://www.allianceforthebay.org) or by mailing a \$20 check to: Stormwater Solutions c/o Alliance for the Chesapeake Bay, 3310 Market Street, Suite A. Camp Hill, PA 17011 *More Information? Contact-717-737-8622 [dmorelli@allianceforthebay.org](mailto:dmorelli@allianceforthebay.org)*

### **Cover Crop & Manure Incorporation Field Day – Nov 9**

On Wednesday, November 9, 2011, from 9:30 a.m. – Noon, at Stoney Lawn Farms (Kopp Family) 1597 Colebrook Road, Middletown, PA. Registration is not required. For more information, please call Dauphin County Conservation District at 717-921-8100 or Penn State Extension – Lancaster County at 717-394-6851.

### **GREENFIRE IS Coming to York County! – Nov 10**

Green Fire is the first full-length, high-definition documentary film ever made about legendary environmentalist Aldo Leopold! November 10, 2011 7:00 pm in York, PA at York College of PA - HUM 218

### **Lancaster Clean Water Consortium Adds Municipal MS4 Workshop – Nov 15**

The [Lancaster County Clean Water Consortium](#) has announced a series of workshops on a variety of issues, including: municipal MS4 permits, sustainable stormwater infrastructure funding and the Chesapeake Conservation Landscaping Council Conference. Local officials, staff, engineers, landscape architects, developers, building and many others involved in land development and environmental protection would find these workshops very useful. The schedule of workshops through the end of 2011 includes:

- November 8: Sustainable Stormwater Financing;
- November 15: Municipal MS4 Workshop; and
- December 2: [Chesapeake Conservation Landscaping Council](#) Conference.

The workshops will be held at the [Farm & Home Center](#), 1383 Arcadia Road, Lancaster. For more information, [download the workshop flyer](#) or visit the [Lancaster County Clean Water Consortium](#) website.

### **Partners in Community Forestry Conference – Nov 15-17**

November 15-17, 2011. La Buena Vista, Florida. Register now and book your room for the 2011 Partners in Community Forestry National Conference, November 15-17, at **Disney's Coronado Springs Resort**. The Partners Conference serves as the annual learning and networking opportunity for all who impact community trees and offers diverse presentations on sustainable partnerships and collaboration models. This year's event will feature preconference activities, general and concurrent sessions, evening presentations, a networking reception and a half-day urban forestry tour. Register online now and receive \$50 off the regular conference rate. We look forward to seeing you in Central Florida! [Visit the Conference Site Now!](#)

### **Wet Weather Issues: Piped and Un-Piped – Nov 15**

November 15, 2011. Linthicum Heights, Maryland. The mission of the Chesapeake Water Environment Association's (CWEA) Collection Systems Committee and Stormwater Committee is to share knowledge and experience with water resources professionals within the greater Chesapeake Bay area. This joint committee seminar highlights wet weather issues, both piped and un-piped. The morning session brings together professionals working in the fields of collections systems and stormwater management and presents the challenges and solutions achievable by working together. The afternoon session includes two tracks covering topics such as funding, data management, reducing inflow and infiltration, infrastructure rehabilitation, stream restoration, and environmental permitting. For additional information, [click here](#). To register, [click here](#). AWSPs members register for CWEA member rates! Sign in to the [Members Only](#) section for more information.

### **Build Cleaner and Greener Workshop – Nov 17**

November 17, 2011. Richmond, Virginia. Presenters from the Green Infrastructure Center and the Capital Region Land Conservancy will share proven tips, strategies and de-signs to help the development community be green and make some green at the same time. Space is limited and pre-registration is required. Registration fee is \$20 if made by November 1, \$30 if made by November 10. Fee includes a chef-prepared lunch. Register online at <http://www.gicinc.org/events.htm>. [Click here for more information](#)

### **Turning a New Leaf Sustainable Landscaping Conference – Dec 2**

December 2, 2011. Lancaster, Pennsylvania\_The Chesapeake Conservation Landscaping Council (CCLC) is bringing its fourth "Turning a New Leaf" Conference to the Doubletree Willow Valley Resort in Lancaster, PA on Friday, December 2, 2011. The conference provides professionals with the latest information on sustainable landscaping and development best practices. Because every effort to be sustainable counts, this year the conference tracks are titled Every Design Counts, Every Drop Counts, Every Plant Counts and Every Message Counts. The conference also hosts an EcoMarketplace featuring a variety of local organizations and green businesses. A wine and cheese networking reception (with cash bar) will follow the main program. Registration is \$99 through November 1, \$119 thereafter. Additional discounts are available for CCLC members! For more information or to register, visit [www.chesapeakelandscape.org/2011leaf.htm](http://www.chesapeakelandscape.org/2011leaf.htm)

### **Center Webcast: Stream Restoration – Dec 7**

December 7, 2011, 12-2 Eastern. Stream Restoration is a multibillion dollar industry worldwide. In fact, the explosion of stream restoration as a watershed management practice has helped create another series of questions regarding the effectiveness of stream restoration in meeting overall watershed and project-specific goals. This webcast will get to the root of the issue and present different points of view from academia, watershed managers and stream restoration practitioners. Cost: \$149 [Registration](#) ends 12/2/11. \$139 [Early Bird Registration](#) ends 11/11/11. AWSPs members receive \$60 off regular registration. Register [here](#). *Must enter your webcast discount code when registering to apply discount. Discount not valid on Early Bird Specials. Can't find the webcast discount code, please send an [email](#) requesting the code.*

### **Winter 2011 Information Exchange: Making Projects Successful in a Changing Climate – Dec 13**

December 13, 2011. Front Royal, Virginia. Free and Open to the Public. [RSVP](#). You are invited to join concerned citizens, watershed and conservation leaders, and public officials to attend our free Information Exchange. Hundreds of individuals from dozens of organizations share experience and gain new perspective on important issues. Since 2006, PWP Info Exchanges have included broad audiences of federal, state & local planners and conservation leaders as well as non-profits and volunteer watershed and forest stewards. Extreme weather such as flooding and severe droughts is becoming more frequent throughout the Potomac River Watershed. Invasive are spreading, and species are drifting north. Come gain the tools to make your projects successful in the future.

[Click here for more information](#)

### **Stormwater Symposium 2012**

The Water Environment Federation (WEF) is pleased to announce the 2012 Stormwater Symposium. The two-day event will be in cooperation with the Chesapeake Water Environment Association (CWEA). Building on a tradition of strong stormwater related education in the mid-Atlantic region, this event will focus on national issues, including the proposed national stormwater rulemaking, regional issues, developing technologies, and management approaches that are key to this growing and evolving topic. This symposium will bring together practitioners, regulators, academics, manufacturers, and visionaries to network and exchange information on the challenges, successes and opportunities related to stormwater. [Click here](#) for more information on submitting Abstracts



## **WATERSHED TECHNICAL ASSISTANCE**

### **PA NRCS Releases Conservation Planning, Regulatory Compliance Guidance**

The [Pennsylvania Office of the U.S. Natural Resources Conservation Service](#) has developed an outstanding compilation of conservation guidance that is a crossroad between all that is conservation planning assistance – and that which is regulatory in Pennsylvania for working lands. The significance of this document is that it provides professional conservationists with easy access across the regulations (state and federal) – and the planning and assistance options that are available across the state and federal spectrum. As of summer 2011 – it is up-to-date with the current regulations – including the Chapter 102 Erosion and Sedimentation requirements for agriculture. The Department of Environmental Protection with the [PA Association of Conservation Districts](#) will be holding training sessions this fall for conservation district personnel. They are planning to have NRCS on the agenda to walk through this handbook/guidance. Extension will be working with PA DEP to broadcast the NRCS presentation via webinar – so please watch for details/dates. **Why This Is Valuable** – Natural Resources and Conservation Service and United States Department of Agriculture policies require that conservation planning assistance be provided by adequately trained and well qualified employees. As you know from your conservation planning guiding principles, knowledge is incomplete; change is constant; and the planning process is dynamic. As science discovers new understandings and governments change their regulations, conservation planners use this new information to help decision makers adapt it to their situation. Over the winter of 2011, NRCS State Office support staff members have worked with Area and Field Office conservationists and experts at the State Conservation Commission, the Pennsylvania

Department of Environmental Protection, Pennsylvania Department of Agriculture, Penn State University, Conservation Districts, and many other partnering organizations to develop guidance relevant to recent changes in erosion and sediment control requirements. Navigating the many laws and regulations of each of the layers of government is time consuming and confusing. As conservationists, it is our duty to make sure the assistance we provide addresses the requirements of all relevant laws and regulations. NRCS is proud to announce the release of the "[Conservation Planning and Regulatory Compliance Handbook](#)." The book has been organized into typical planning and land use topic areas to assist you in making sense of the State's new regulation changes. Blank tabs have been provided in the handbook for your convenience to insert materials you may have already collected and frequently use. When support staff members develop guidance for other planning and regulatory topics, new tabs will be provided to add to the handbook. While official policies and guidance are maintained in the online directives and field office technical guide systems, this handbook is intended to help you find quick reference to the items you most frequently use. A copy of the handbook is [available online](#). For assistance with technical content, contact Noel Soto, NRCS Soil Conservationist, by calling 717-237-2173 or send email to: [noel.soto@pa.usda.gov](mailto:noel.soto@pa.usda.gov).

### **U.S. Rivers and Streams Saturated With Carbon**

ScienceDaily (Oct. 19, 2011) — Rivers and streams in the United States are releasing substantially more carbon dioxide into the atmosphere than previously thought, according to researchers publishing their results in the current issue of the journal *Nature Geoscience*. Their findings could change the way scientists model the movement of carbon among land, water and the atmosphere. The researchers found that a significant amount of carbon contained in land, which first is absorbed by plants and forests through the air, is leaking into streams and rivers and then released into the atmosphere before reaching coastal waterways. He and his co-author, ecologist Peter Raymond also of Yale, analyzed data from samples of more than 4,000 rivers and streams throughout the United States, and incorporated detailed geospatial data to model the flux of carbon dioxide from water. This release is equal to a car burning 40 billion gallons of gasoline, enough to drive back and forth to the moon 3.4 million times. The paper, titled "Significant Efflux of Carbon Dioxide from Streams and Rivers in the United States," also indicates that as the climate heats up there will be more rain and snow, and that an increase in precipitation will result in even more terrestrial carbon flowing into rivers and streams and being released into the atmosphere. Any accurate estimate of carbon uptake vs. carbon released must include the carbon in streams and rivers. The researchers note that currently it's difficult to determine how to include this flux in regional carbon budgets, because the influence of human activity on the release of carbon dioxide into streams and rivers is still unknown. The research was also funded by a NASA Earth and Space Science Fellowship, a NASA Carbon & Ecosystems Program grant, and the Yale School of Forestry & Environmental

### **Using Watershed Planning to Meet Local and Bay-Wide TMDL Goals by Julie Schneider, Center for Watershed Protection**

The Center is currently working with the Baltimore County, Maryland Department of Environmental Protection and Sustainability to develop a watershed plan for the Beaverdam Run watershed. This project is part of a long term effort to develop watershed plans for the entire County. These plans will provide the County with a list of identified protection and restoration projects and their associated pollution reduction will help to achieve both the local and Chesapeake Bay-wide Total Maximum Daily Loads (TMDLs). The Beaverdam Run watershed drains 13 mi<sup>2</sup> and is located outside the Baltimore County Urban Rural Demarcation Line. Land use in the watershed is dominated by low density residential (47%), forest (30%), and agriculture (17%), according to 2007 data from Maryland Department of Planning. Development in the watershed is entirely on septic systems and has a low population density of 0.7 people/acre based on 2000 Census data. Populations of native brook trout are found in the upper reaches of the watershed. The watershed represents 6% of the drainage area to the Loch Raven Reservoir, one of the three reservoirs in the region that supplies drinking water to surrounding counties and Baltimore City. TMDLs for the Loch Raven Reservoir include total phosphorus (TP), total suspended solids, methylmercury in fish tissue, and fecal coliform in the tributary streams. For the development of the Beaverdam Run watershed plan, TP is the main nutrient of concern as it is also one of the pollutants of concern for the Chesapeake Bay TMDL. For the Loch Raven Reservoir, the goal for TP reduction is 50%. Although there are many types of pollution sources in the watershed, including agricultural runoff and septic systems, development of the watershed plan for Beaverdam Run primarily utilized stream and upland field assessments to identify restoration and protection projects that can reduce TP on developed lands and along stream corridors. Stream stability assessments were conducted by Coastal Resources Inc. to quickly identify environmental problems within the stream network, including stream erosion, channel alterations, stream buffer impacts, resulting in recommendations for stream stabilization, buffer reforestation and other restoration projects. In conjunction with the stream assessments, upland assessments of residential neighborhoods, commercial lands and institutional areas were led by KCI Technologies, Inc. to identify potential sources of pollution (e.g. overflowing dumpsters) and restoration opportunities (e.g. lawn nutrient reduction). The result of the field assessments was a proposed list of best management practices (BMPs) at specific problem sites. Using this list, a quantitative analysis of potential pollutant reduction was conducted using the latest Chesapeake Bay Program removal efficiencies. The results indicate that a 38.4% TP reduction is expected in the watershed from the identified BMPs alone, which falls short of the 50% TP TMDL reduction goal but is likely to be made up by achieving greater pollutant reductions in other watersheds draining to the Loch Raven Reservoir or from other sectors, such as agriculture or septic systems. Additional TP removal can be achieved from BMPs that are not currently accounted for in the CBP's Watershed Model, but may be in the future (e.g., pollution prevention, education and outreach, on-lot tree planting). Later this year, the planning process will begin for a watershed just east of the Loch Raven reservoir. Once all the plans are completed for Loch Raven Reservoir, the expected pollutant reductions will be tallied to determine progress towards achieving TMDL goals. The resulting plans meet the EPA's criteria for developing watershed plans and therefore will be eligible for §319 funding for watershed plan implementation.

### **Severe Drought, Other Changes Can Cause Permanent Ecosystem Disruption**

ScienceDaily (Oct. 13, 2011) — An eight-year study has concluded that increasingly frequent and severe drought, dropping water tables and dried-up springs have pushed some aquatic desert ecosystems into "catastrophic regime change," from which many species will not recover. The findings, just published in the journal *Freshwater Biology*, raise concerns that climate change, over-pumping of aquifers for urban water use, and land management may permanently affect which species can survive. The research, done by Lytle and doctoral candidate Michael Bogan, examined the effect of complete water loss and its subsequent impact on aquatic insect communities in a formerly perennial desert stream in Arizona's French Joe Canyon, before and after severe droughts in the early 2000s. The stream completely dried up for a period in 2005, and again in 2008 and 2009, leading to what researchers called a rapid "regime shift" in which some species went locally extinct and others took their place. The ecosystem dynamics are now different and show no sign of returning to their former state. Six species were



eliminated when the stream dried up, and 40 others became more abundant. Large-bodied "top predators" like the giant waterbug disappeared and were replaced by smaller "mesopredators" such as aquatic beetles. The phenomena, the researchers say, does not so much indicate the disappearance of life – there is about as much abundance as before. It's just not the same. Small streams such as this are of particular interest because they can be more easily observed and studied than larger rivers and streams, and may represent a microcosm of similar effects that are taking place across much of the American West, the researchers said. The speed and suddenness of some changes give species inadequate time to adapt. The researchers noted in their report that the last 30 years have been marked by a significant increase in drought severity in the Southwest. The drought that helped dry up French Joe Canyon in 2005 resulted in the lowest flow in Arizona streams in 60 years, and in many cases the lowest on record. At French Joe Canyon, the stream channel was completely dry to bedrock, leaving many aquatic invertebrates dead in the sediments. That was probably "an unprecedented disturbance," the researchers said in their report. Community composition shifted dramatically, with longer-lived insects dying out and smaller, shorter-lived ones taking their places. Conceptually similar events have taken place in the past in plant communities in the Florida Everglades, floodplains in Australia, and boreal forests following fire disturbance, other researchers have found. In the Southwest, climate change models predict longer, more frequent and more intense droughts in the coming century, the scientists noted in their study. The research was supported by the National Science Foundation.

### **Forest Structure, Services and Biodiversity May Be Lost Even as Form Remains**

ScienceDaily (Oct. 3, 2011) – A forest may look like a forest, have many of the same trees that used to live there, but still lose the ecological, economic or cultural values that once made it what it was, researchers suggest in articles in the *Proceeding of the National Academy of Sciences*. One study outlines services and functions that are disappearing in mountain ash forests in Australia, and a commentary in the journal pointed out that many of the same issues are in play in forests of the Pacific Northwest, the grasslands of the Great Basin, and other areas. Beneath a veneer of forest health, dramatic reductions may be taking place in such functions as carbon sequestration, water yields, wildlife protection and biodiversity of species, said scientists from Oregon State University and the University of Washington. They called for more attention to natural processes, restoration of the broad range of forest structures needed to maintain the original ecosystem, and reassessments of policies and management practices as needed. In particular, the article questioned any continued harvest in old growth forests and salvage logging after wildfires or wind storms. Traditional practices in forest management for wood production, such as clear-cutting, site preparation and replanting, tend to produce young forests with uniform structures and low diversity. Large, old trees with cavities, essential to many wildlife species are often absent. And increasingly, even young but very diverse forest stages are becoming scarce. The researchers in these journal articles call this a "landscape trap," a complete shift to new ecological processes that bear little resemblance to those of the past. The dry forests of Eastern Oregon, Johnson said, are a perfect example. Where small fires would once burn frequently and clear out undergrowth but allow large trees to survive, the forests are now crowded, thick with undergrowth, prone to severe fire, re-growth and a repeat of that catastrophic pattern. Allowing burned forests to recover naturally would be a positive contribution to development of both diverse understories and complex forest structures, the analysis said, even though the full process may take centuries to reach fruition. Recovery in some areas may be much faster than that, depending on the situation, Johnson said, but the conditions of many forests will be difficult from which to recover.

### **Ammonia Air Pollution from Cars and Trucks Worse in Winter**

ScienceDaily (Oct. 11, 2011) – Motor vehicles and industry are primary producers of ammonia in Houston's atmosphere, and cars and trucks appear to boost their output during the winter, according to a new study by researchers at Rice University and the University of Houston (UH). Ammonia's role in air quality draws minimal oversight from the Environmental Protection Agency (EPA), but researchers at both Houston institutions are learning what it means to life in and around the metropolis. The study led by Rice Professors Robert Griffin and Frank Tittel in collaboration with UH researcher James Flynn and Professor Barry Lefer revealed the seasons play a role in ammonia produced by vehicles. Their instruments also measured plumes of airborne ammonia from isolated incidents. The results appeared in a recent research paper in the journal *Atmospheric Chemistry and Physics*. Ammonia quickly combines with other airborne elements: sulfuric acid to make ammonium sulfate salts or, in cooler conditions, nitric acid to make ammonium nitrate. The particles could impact air quality as well as atmospheric visibility, cloud formation, climate patterns and nutrient cycling. Ammonia is found throughout the atmosphere in levels ranging from parts per trillion to parts per billion (ppb), he said. People can detect ammonia at five to 50 parts per million (ppm). Concentrations above 100 ppm are uncomfortable to most, according to the EPA. The sources are many: industry, motor vehicles, agriculture (as a major component of fertilizer) and livestock. Even humans produce ammonia. (Household ammonia is highly diluted with water – but one should still avoid the pungent fumes.) Wondering how much ammonia is in the atmosphere at any given time, the researchers gathered data 24 hours a day over two weeks in February and six weeks in late summer, 2010. Readings were taken atop the University of Houston's tallest building, North Moody Tower. The residence hall is ideally situated to pick up changes in the wind not only from the nearby Houston Ship Channel and its associated industries to the east, but also power generation facilities to the southwest and Houston traffic in every direction. Tittel, a pioneer in laser sensing and Rice's J.S. Abercrombie Professor of Electrical and Computer Engineering, and Rafal Lewicki, a co-author and graduate student in Tittel's laser science group, designed and built an apparatus to collect the data. Their external-cavity quantum cascade laser-based sensor is finely tuned to pick up signs of ammonia from air samples continuously cycled through the closed system. Real-time readings were taken with a resolution of less than five parts per billion and autonomously monitored at Rice via the Internet. Sampling at a single site produced results that at first seemed contradictory, Griffin said. For example, while overall levels were highest in the summer, ammonia emissions from vehicles were found to be highest in winter when harder-working car and truck engines reduced the performance of catalytic converters. (Carbon monoxide levels recorded by UH instruments on the tower correlated nicely, the study showed.) Part of the answer was blowing in the wind. The researchers found the prevailing wind during winter morning rush hours came from the southeast – past several major highways and Houston's William P. Hobby Airport – and carried a high level of vehicle emissions. During summer morning rush hours, the wind whistled in from the northeast, passing the ship channel and increasing readings from industrial activity and including occasional spikes, including a nearby traffic accident, that raised the average. Winter levels of airborne ammonia ranged from 0.1 to 8.7 ppb with a mean of 2.4 ppb. A larger range – 0.2 to 27.1 ppb with a mean of 3.1 ppb – was observed during the summer. The team's next study will track the source and fate of other components in airborne particulate matter. Griffin did not foresee the EPA monitoring ammonia for the sake of establishing a standard. "But because it can be such a significant precursor to particulate matter, the EPA needs to keep an eye on it.

### **Natural Resources Conservation Service says Great Lakes conservation is working**

Conservation efforts to reduce sedimentation and fertilizer runoff in the Great Lakes region are making a significant difference, the chief of Natural Resources Conservation Service said. Chief Dave White made the announcement on the heels of a U.S. Department of Agriculture study, which shows erosion-control and nutrient-management practices on cultivated cropland are reducing losses of sediment, nitrogen and phosphorous from farm fields and decreasing the movement of these materials to the Great Lakes and their waterways. Read article... <http://www.farmanddairy.com/news/nrcs-great-lakes-conservation-is-working/30611.html>

### **Farm subsidies birds and fish would choose**

Under conservation subsidies, the government pays farmers to do things that are good for the environment, but aren't profitable. The biggest single source of green payments, the Conservation Reserve Program, pays farmers to take cropland out of production for 10 years or more and instead plant native grasses that land. Conservation subsidies may be the most effective way to improve the health of the vast Mississippi watershed. Farmers control the vast majority of the land in such places. Their cumulative decisions can drive species into extinction by eliminating grasslands and wetlands. Learn more... <http://www.npr.org/blogs/thesalt/2011/10/17/141348414/farm-subsidies-birds-and-fish-would-choose>

### **Cover crops preacher brings message to Minnesota**

The preacher of cover crops delivered his own fire and brimstone message at the Soil Quality Workshop in Waseca, Minn. Jim Hoorman, an extension educator with Ohio State University Extension, says tillage and the lack of soil cover for eight months a year are reducing yields and profits. Hoorman pushes a concept called ECO farming — ecological farming with a continuous living cover and other best management practices. ECO farming is economical for the farmer, ecologically viable and environmental sound, Hoorman said. Read more... <http://www.agrinews.com/cover/crops/preacher/brings/message/to/minnesota/story-3995.html>

### **Study reveals true diversity of life in soils across the globe: new species discovered**

Microscopic animals that live in soils are as diverse in the tropical forests of Costa Rica as they are in the arid grasslands of Kenya or the tundra and boreal forests of Alaska and Sweden, according to a groundbreaking study. Scientists have generally accepted that a wider range of species can be found above ground at the equator than at the Earth's poles, but this study proves for the first time that the same rules don't apply to the nematodes, mites and springtails living underground. Learn more... <http://www.physorg.com/news/2011-10-reveals-true-diversity-life-soils.html>

### **Weather changes increase need for conservation measures**

Weather conditions have been changing over the past few years with more rain, greater intensity of rain, higher humidity levels and many other factors. As a result of such changes, increased erosion of soil has occurred and required more attention to soil conservation, there have been more acreage tilled, greater disease pressure has occurred, more weed control problems have occurred and changes have occurred in farming that respond to changes in weather conditions. Learn more... <http://www.farmgateblog.com/article/has-the-weather-caused-you-to-change-the-way-you-farm>

### **PENNVEST Nutrient Credit Clearinghouse Rulebook**

As you may or may not know, PENNVEST has hired Markit Group Limited ("Markit") to provide online enrollment, eligibility and auction services for the PENNVEST Nutrient Credit Clearinghouse. PENNVEST and Markit have been working over the last several months to develop and implement the online systems that will serve the PENNVEST Clearinghouse. In order to reflect the changes in our process due to the implementation of the new online system, we have made revisions to the PENNVEST Nutrient Credit Clearinghouse Rulebook. The Rulebook also contains more detailed information and examples relating to the methodology used to calculate auction results. A copy of the new PENNVEST Nutrient Credit Clearinghouse Rulebook, as well as a red-lined version showing all changes from the prior version, are available on the PENNVEST Website under the "Documents" section of the Nutrient Credit Trading Tab or by clicking on the following link: [http://www.portal.state.pa.us/portal/server.pt/community/nutrient\\_credit\\_trading/19518/documents/762187](http://www.portal.state.pa.us/portal/server.pt/community/nutrient_credit_trading/19518/documents/762187). Should you have any questions about the revised version of the Rulebook, please do not hesitate to contact Shawn Weis at [sweis@pa.gov](mailto:sweis@pa.gov) or 717-783-6776. Thank you for your continuing interest in the PENNVEST Clearinghouse.

### **EPA Proposes to Collect Information about Concentrated Animal Feeding Operations**

On October 14, EPA proposed that concentrated animal feeding operations (CAFOs) submit a specific set of basic operational information so the Agency can more effectively carry out its CAFO permitting programs on a national level and ensure that CAFOs are implementing practices to protect water quality and human health. The proposal, which is part of a settlement agreement reached with the Natural Resources Defense Council, Waterkeeper Alliance, and the Sierra Club, will be open for public comment for 60 days after publication in the Federal Register. The National Pollutant Discharge Elimination System (NPDES), a part of the Clean Water Act, requires that CAFOs obtain a permit from EPA or authorized states before discharging any pollutants from their operations into a water of the United States. CAFOs that do not discharge pollutants do not need a NPDES permit. EPA's proposal does not change which CAFOs need permits under NPDES. For more information: <http://cfpub.epa.gov/npdes/afo/aforule.cfm>

### **U.S. Fish and Wildlife Service Releases Report: Status of Trends of Wetlands in the Conterminous United States 2004 - 2009**

The U.S. Fish and Wildlife Service has played a leading role in defining the biological extent of wetlands, implementing a national classification system, developing standards for mapping and monitoring wetland habitats, and partnering with federal and state agencies, Tribes, and private organizations tracking wetland changes over time, since 1954. This report, which represents the most up-to-date, comprehensive assessment of wetland habitats in the United States, documents substantial losses in forested wetlands and coastal wetlands that serve as storm buffers to absorb pollution that would otherwise find its way into the nation's drinking water and provide vital habitat for fish, wildlife, and plants. To view the report, please visit: <http://www.fws.gov/wetlands/StatusAndTrends2009/index.html>

