TENNESSEE STORMWATER ASSOCIATION

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TNSA Times

Tennessee Stormwater Association News & Information

Fall 2015

Message from the TNSA President: The Value of TNSA

VALUE? One definition of 'Value' is "the importance, worth, or usefulness of something". A quote attributed to Albert Einstein "*Strive not to be a success, but rather to be of value.*" TNSA is striving to be of **'value'** to its membership, and in doing so, we hope we will also be ***successful*** (Mr. Einstein!).

We all have to justify the **'value'** of what and where we are spending our time and limited resources; the Tennessee Stormwater Association is working hard to be an organization that you don't have to think twice about our value.

What have we done for you lately?

TRAINING 1.0: Education/info sharing/training is an important arena that has been our focus since our inception: holding Quarterly Regional meetings, primarily for sharing information, and our annual Conference, that's coming up quickly (*Fall into Green*), and our second year of TNSA East TN Development Symposium; these events are not just for education, but important networking opportunities.

TRAINING 2.0: We are in the process of expanding: with leadership from David Carver and our Education Committee, we are in the mist of developing TNSA sponsored courses in topics such as Plan Review, Good Housekeeping, Monitoring, and others, that we hope will aid the MS4 community in satisfying permit requirements.

TDEC: We are in continuous discussion with TDEC on different topics. This year we have had several meetings concerning the up-and-coming new **Phase II permit language** and **Monitoring meeting**.

LOOKING TO THE FUTURE: continuing conversation with TDEC and monitoring EPA. TNSA is on the NACWA (National Organization of Clean Water Agencies) National Stormwater Network Committee: Participating in conference calls pertaining to nationwide stormwater/water quality issues.

If there is training or other services you think TNSA should be doing, let us know. And to Albert, we are forever striving to be **successful** and develop **value**, relatively speaking.

Don Green, LEED AP
President, TNSA

New! Tennessee Urban Riparian Buffer Handbook

The Tennessee Department of Agriculture, Division of Forestry (TDF), recently completed a six year USDA Forest Service grant funded Urban Riparian Buffer Program, and will be presenting the results of this program along with one of its outcomes in partnership with the UT Water Resources Research Center (UTK) at this year's annual TNSA Conference at Fall Creek Falls State Park.

The new publication, entitled *Tennessee Urban Riparian Buffer Handbook; A Practical Guide to Establishing Streamside Water Quality Buffers*, will be presented jointly by representatives of UTK and TDF at 3:00 p.m. on October 20th.

This new Tennessee specific handbook will provide practical step-by-step guidance to anyone wishing to organize volunteer based riparian buffer tree planting projects. It covers many important details and considerations necessary to have a successful project, and includes a comprehensive recommended riparian buffer plant list organized by east, middle and west Tennessee.

Also included are examples of handout materials that can be used to engage the public as well as potential landowners in such projects.

The handbook will be primarily available as an on-line document; however a limited number of printed copies will be available to those attending the presentation. It is hoped that stormwater programs statewide will find the handbook helpful in organizing volunteer riparian buffer projects to help them engage the public and meet their public participation requirements.

We would like to thank all of those who helped make this new handbook possible, including: Ruth Anne Hanahan, Kelly Porter, Katie Walberg, and Tim Gangaware at the UT Water Resources Research Center who developed the handbook; Jennifer Watson of TNSA, Rebecca Dohn of Metro Water Services, and Robby Karesh of TDEC's Water Resources Division, for their reviews, edits, and thoughtful input; and a team of 24 botanist, foresters, and biologist from

Continued on page 5

TENNESSEE STORMWATER ASSOCIATION

Executive Director
Charlene DeSha
Charlene@tnstormwater.org

TNSA Committees

Regulations & Policy
Chair: Jennifer Watson & David Mason

Education Training & Professional Development
Chair: David Carver

Manufacturer BMP Evaluation
Chair: Chris Granju

Conference Planning
Chair: Crystal Piper

We welcome TNSA Members to participate on any of these committees! Please contact the committee chair for additional information.

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2015 TNSA Membership Campaign

The Tennessee Stormwater Association's annual membership campaign is in full force! The membership term runs through July 1-June 30.

The mission of TNSA is to assist local government entities in their efforts to comply with State and Federal clean water laws and storm water regulations promulgated by the Environmental Protection Agency and the Tennessee Department of Environment and Conservation; and through such assistance, to protect and improve the quality of the waters of Tennessee. Various training opportunities are made available to TNSA members.

TNSA is comprised of 5 regional chapters coordinated by local chairpersons located in East TN, Southeast TN, Northeast TN, Middle TN and West TN.

Connect with these groups through the TNSA Facebook page and other popular forms of social networking including Twitter and LinkedIn. Other opportunities are provided through regional groups meetings and annual statewide conference.

The mission will be accomplished through TNSA members' exchange of information and knowledge regarding the design, construction, maintenance, administration and operation of storm water facilities.

TNSA will promote the dissemination of information in stormwater control measures, educational resources, and the adoption of improved practices in stormwater administration.

TNSA also provides coordination between MS4s regionally and statewide for program consistency and identification of cost-sharing opportunities and time-saving techniques.

TNSA encourages and promotes partnering opportunities. TNSA's partners include: the TN Chapter of American Public Works (TCAPWA), TDOT, TDEC, TDA, TWRA, MTAS, MTSU, TN Association of Broadcasters, Project WET and other formal and non-formal education partners, as well as various watershed and environmental groups.

Members in good standing from all levels of membership will have the opportunity to compete for representation on the TNSA Board of Directors as per the TNSA By-laws. Opportunities are also available to chair and co-chair a variety of subcommittees.

TNSA is an independent organization to benefit MS4 programs and water quality. TNSA offers members a forum to provide a majority opinion of MS4 views to TDEC and the public at large. Representatives serve in stakeholder advisory capacities on elements such as the future development of the state's stormwater permitting program and stormwater training program.

TNSA offers members an avenue to take advantage of existing resources as well as leverage their buying power for more efficient resource utilization. Examples of resource offerings include, but are not limited to, printed publications, public service announcements, bulk lab testing, training opportunities and community outreach..

TNSA also offers a unified and consistent statewide approach to educational campaigns and watershed protection efforts. TNSA is working to develop clearinghouse services that identify and make existing resources and tools available to the MS4 community.

Interested in joining? Visit our website at www.tnstormwater.org or contact Charlene DeSha at Charlene@tnstormwater.org.

New TNSA Membership Benefit: Wiggio

Introducing the new TNSA Membership benefit:: Wiggio. Wiggio is an online service, which allows members to share files, calendar of events and conversations. TNSA's goal for this program is to allow sharing of programs, ordinances, permits, education programs and more across the state. Why reinvent the wheel when you don't have to is our motto! This program also allows a feed for group discussions, which can help eliminate multiple emails. Contact Charlene DeSha if you are a member and not added to the program. Charlene@tnstormwater.org, 615-926-7094.

TNSA participated in Keep Tennessee Beautiful Conference

TNSA Executive Director, Charlene DeSha, attended and presented at the Keep Tennessee Beautiful Conference this month in Franklin, TN.

She discussed partnership opportunities between MS4's and local Keep American Beautiful (KAB) Affiliates. During her presentation she offered education outreach opportunities ranging from grades K-12 to Hot Spot Business training. Children education included a "Fred the Fish" and EnviroScape presentation. She also shared MS4 location and contact information with the affiliates.

Do you have a local KAB affiliate in your area? If so, do you currently partner with them? A partnership could be extremely helpful to your MS4 in meeting your education outreach goals. Visit http://www.keeptnbeautiful.org/ to find out if you have an affiliate near you. Contact Charlene for more info!

Tennessee Stormwater Association

2015 Annual Conference

October 20 – 22, 2015

Fall Creek Falls State Park

Pikeville, Tennessee

"Fall into Green"

Join us at Fall Creek Falls State Park in Pikeville, Tennessee, as we explore challenges and discover solutions to the ever-changing world of stormwater management in Tennessee. This year's theme is "**Fall into Green**". We have a great schedule of presentations that inspire and educate, that provide realistic and cost-effective solutions to managing stormwater runoff, and innovative approaches to meeting MS4 permit requirements.

This year's Keynote Speaker will be **Bill Landry** who is the voice, host, narrator, and co-producer of "The Heartland Series", which has aired on WBIR-TV for nearly thirty years. Since its beginnings in 1984, over 1,900 short features have been produced, including 150 half-hour specials. Bill's been awarded two Emmy Awards, the Education in Appalachia Award and received an honorary doctorate of Humanities from Lincoln Memorial University. The series has also received many national and international awards.

Click Here for Agenda!

Register online today!

Registration Rates:

Tennessee Stormwater Association Member **$155.00** *(Your organization or business must be a TNSA member in order to pay this price. Not sure if you are a member? Email charlene@tnstormwater.org)*

Non-Member **$195.00**
One day registration **$100.00**

Paying by check? Make checks payable to TNSA (**note TNSA Annual Conference in the memo line)** and mail to: *charlene@tnstormwater.org*

Need an invoice? Contact Charlene DeSha by email or call 615-926-7094

We look forward to another great conference this year!

Sincerely,

Crystal Piper
President – Elect
Conference Committee Chair
Tennessee Stormwater Association

Stormwater Should Be Seen As Resource, Water Group Says

By Amena H. Saiyid, Bloomburg BNA

Sept. 28 — Rather than viewing stormwater as a waste product that needs to be treated and discharged, the Water Environment Federation says it should be managed as a resource where it rains. The organization released a report Sept. 28, Rainfall to Results: The Future of Stormwater, spelling out challenges, opportunities and approaches that the nation's water utilities can use to improve stormwater management. Stormwater is a growing source of pollution in communities across the country, according to the report, released at the 2015 Water Environment Federation Technical Exhibition and Conference in Chicago.

The report builds on the premise that stormwater should be considered a resource and managed through a mix of "affordable and sustainable green, gray and natural infrastructure." Traditional controls complement other types of stormwater management systems, such as green infrastructure, to capture pollutants well before they are carried off and contaminate nearby waterways, the report said. Also, it recommended communities consider managing stormwater at the watershed level and incorporating its integrated planning and management across all water services. At the federal and state level, the report recommends using long-term plans to manage stormwater and integrating such strategies into discharge permits. "Rainfall to Results details a clear vision for where we need to be on stormwater issues, but more importantly, it also gives us a map for getting there," Ed McCormick, WEF president, said in a statement. "From encouraging work at the watershed level to improving governance and the regulatory environment, the report gives practitioners the tools they need to sustainably manage stormwater."

WEF Stormwater Institute

The report builds upon the discussions that arose out of a meeting that WEF convened and the Johnson Foundation at Wingspread co-sponsored in Racine, Wis., this past July. WEF also launched its Stormwater Institute Sept. 28, a new center for excellence and innovation that will address stormwater management issues. The EPA Office of Water also released an interactive online tool that allows communities to access green infrastructure tools and resources. The report's release also coincided with the EPA's decision to reach an agreement with environmental groups to revise stormwater rules for communities with less than 10,000 people (180 DEN A-1, 9/17/15).To contact the reporter on this story: Amena H. Saiyid in Washington at asaiyid@bna.com

To contact the editor responsible for this story: Larry Pearl at lpearl@bna.com

For More Information

The Water Environment Federation report, Rainfall to Results: The Future of Stormwater, is available at http://www.wefnet.org/stateofstormwater/.

New! EPA interactive Green Infrastructure Tool: Green Infrastructure Wizard

Green infrastructure uses natural landscapes to manage water and provide environmental and community benefits.

EPA's Green Infrastructure Wizard, or **GIWiz**, provides access to tools and resources that can support and promote water management and community planning decisions.

What is GIWiz?

GIWiz is an interactive web application that connects communities to EPA Green Infrastructure tools & resources.

GIWiz offers quick, direct access to Green Infrastructure tools & resources. Users can produce customized reports.

Features include:

Quick Links - Customized access to thousands of green infrastructure tools & resources, according to one of four objectives.

Explore - Access to an interactive database of green infrastructure tools & resources, based on your individualized specifications.

Connect - For application related questions, send an email to GIWIZ@epa.gov.

Online (Virtual) Course Announcement: Hydrologic Impacts under Climate Change

The COMET Program and the Climate Change and Water Working Group (CCAWWG) are pleased to announce a three-day, online, instructor-led course on "Hydrologic Impacts Under Climate Change" (HIUCC). The course is being developed with financial support from the Bureau of Reclamation and the U.S. Army Corps of Engineers. The HIUCC course is part of the Professional Development Series, "Assessing Natural Systems Impacts under Climate Change." Participants will work through hydrological models to explore and project impacts of a changing climate on surface water hydrology. HIUCC is designed for a broad range of technical participants including water resource professionals, environmental scientists, hydrologists, state and local planners, and university faculty. Course dates are: **October 20- 22, 2015**; 9:00am-4:00pm daily. Early registration deadline: September 15, 2015.

Click Here for details

Value of Water Coalition Unveils New Education Campaign and Toolkit, "What's the Value of Water?"

Materials are Free to Use in your Education Efforts

On August 4, 2015, the Value of Water Coalition unveiled its new education campaign and toolkit:"What's the Value of Water?" Using striking images, the campaign aims to shine a light on water- our most precious, but often invisible, resource. These education materials are available for free to any organization that is working to raise awareness about the importance of investment in water infrastructure and water resources.

"The Value of Water Coalition is proud that we created these beautiful and functional educational materials to help organizations around the country educate and engage people about the true value of water," said Radhika Fox, Director of the Value of Water Coalition and President of the U.S. Water Alliance. "It was an amazing process of collaboration among the 30 members of our coalition. We have some of the top leaders in water engaged in our Coalition, and this toolkit brings together decades of expertise in how to effectively communicate the value of water."

"It's imperative that we recognize the value of water in so many facets of our daily lives," said David LaFrance, Chief Executive Officer of the American Water Works Association. "Water is the world's most important resource, and the systems that clean it, bring it to our homes, and return it to the environment are critical to our communities. Our lives, our economy, our public safety are severely impacted if we lose access to water service even for a day."

"Our water resources are being stressed more than ever, but it can be challenging to communicate this in ways that we can all relate to. Sometimes the most impactful message about water is the simplest one: what would it be like to live a day without it," said Eileen O'Neill, Executive Director of the Water Environment Federation. "We can all benefit from taking a moment to think about water and the importance of maintaining the systems that support our communities. We hope the entire water sector uses these materials to spread the message of this campaign from coast to coast."

The "What's the Value of Water?" toolkit provides the following materials to any organization that wishes to educate and engage people about the value of water:

- Billboards
- Outdoor advertisements
- Print advertisements (horizontal and vertical layouts)
- Bill Stuffers
- Conference Banners
- Water Fact Sheet
- Message Guide
- Shareable Social Media Graphics

All materials are available for download on the Value of Water Coalition website: www.thevalueofwater.org. Please review usage guidelines before publishing any materials.

Media Contact: Abigail Gardner | agardner@thevalueofwater.org |(412) 421-0809

New Tennessee Urban Riparian Buffer Handbook

Continued from page 1: across the state for their expert review and comment on the handbook's plant list. The Handbook is the final accomplishment of TDF's six year Urban Riparian Buffer Program. Other accomplishments included: 170 individual volunteer projects at 50 different planting sites in middle Tennessee; 27,856 trees planted along 30,451 linear feet (almost 6 miles) of waterways covering over 23 acres; and 2,755 volunteers engaged who contributed 7,809 ours of time. All volunteers who participated were given a brief educational program as to the importance of riparian buffers and their relationship to water quality.

Other accomplishments of the Program included: partnering with the Cumberland River Compact to establish a new Mill Creek Watershed Association; partnering with TDEC and Metro Water Services on the Annual Nashville Urban Runoff 5K and Water Quality Festival; and partnering with the Tennessee Environmental Council on the Annual 50K Tree Day. These last two partnerships will also be presented at the TNSA Conference. These three presentations together will provide a great opportunity for new creative ways to engage the public in water quality activities.

The Tennessee Urban Riparian Buffer Handbook, as well as other related resources, can be found at: http://www.tn.gov/agriculture/article/ag-forests-riparian-buffer.

Another Successful 2015 Urban Runoff 5K in Nashville!

On a cool Saturday morning in August, 233 participants came out to run or walk our third annual Urban Runoff 5K in Centennial Park in Nashville.

Nashville's Metro Water Services, the TDEC, TDA, and TNSA teamed up together once again to host this fun chip-timed and certified Urban Runoff 5k run. We also enjoyed a fun and educational Water Quality Festival that celebrates clean water and green infrastructure and includes kids' activities, hands-on education, and more! Also this year, we hosted a Water Quality Grant Competition and the winner was the Tennessee Environmental Council! Congratulations TEC!

The run began at Centennial Park and weaved its way past several cool and innovative green stormwater management practices—including some floating wetland islands. A portion of the net proceeds go to TNSA to continue to offer this healthy and fun public educational opportunity each year and assist local governments that promote water quality health awareness & local clean water efforts.

Thank you to the following sponsors: Civic Engineering, Rock City Construction, Belgard Hardscapes, Wilmot, Gobbell Hays Partners, AMEC Foster Wheeler, SustainVU, TEC, CDM Smith, TDA-Forestry, TDEC, Nashville Zoo, Vanderbilt Water Professionals Student Chapter, City of Goodlettsville, City of Mt. Juliet, Tennessee Smart Yards, Richland Creek Watershed Alliance, TDOT, Metro Parks and Engineers Without Borders.

Clarksville/Montgomery County Green Certification Program

Ashlie Farmer, City of Clarksville MS4

Montgomery County and the City of Clarksville are proud to announce the Clarksville-Montgomery County Green Certification Program.

Launched in March 2011, the Green Certification Program is designed to help businesses learn and implement best practices in the area of environmental stewardship in an effort to sustain our community's resources through a series of free workshops taught by environmental and other subject area specialists. The idea for the CMCGCP originated from a Leadership Clarksville study group and is based on successful environmental initiatives that have originated globally. The program is an educational component of Montgomery County Bi-County Solid Waste Management.

With great excitement and pride, we would like to announce that the Clarksville Street Department just became the most recent graduate of the Clarksville Montgomery County Green Certification Program! Our team has worked diligently to become a Green Certified department by developing an Environmental Management Plan, participating in workshops, giving educational presentations and establishing programs within the department to reduce our energy consumption. We have also shared data in the areas of recycling, energy efficiency, reuse and repurposing, pollution reduction and stakeholder communication.

The Clarksville Street Department strives to be a steward of the environment and will continue to develop and implement practices and programs to sustain our community's natural resources.

Thank you to all of the Street Department staff who have participated in this program. A special thank you goes out to Orville Sykes and Jeff Bryant, the two employees who began this program. Without their hard work in the beginning and throughout this process, our Green Certification wouldn't have been possible. Great job Street Department! We, along with several other businesses and one other City Department (Gas and Water) were recognized at the Green Certification Awards Banquet on September 24th.

EPA's Urban Waters Small Grants program is currently requesting proposals!

The DUE DATE for proposals is November 20, 2015. Keep your eyes open for webinar announcements that will help you with RFP information.

Under this announcement, the U.S. Environmental Protection Agency (EPA) is soliciting proposals from eligible applicants for projects that will advance EPA's water quality and environmental justice goals. Proposed projects will address urban runoff pollution through diverse partnerships that produce multiple community benefits, with emphasis on underserved communities. Note that proposed project activities must take place entirely within one of the Eligible Geographic Areas, as illustrated on the interactive map provided on the Urban Waters Small Grants mapping website.

The complexity and widespread impact of urban runoff pollution requires various levels of government and local stakeholders (e.g., community residents, local businesses, etc.) to work together in developing effective and long-term solutions with multiple benefits. EPA supports and empowers communities, especially underserved communities, that are working on solutions to address multiple community needs, and fostering successful collaborative partnerships. Projects should address local water quality issues related to urban runoff pollution; provide additional community benefits; actively engage underserved communities; and foster partnership.

The total estimated funding available for awards under this competition is approximately $1.6 million. EPA expects each award to range from $40,000 to $60,000. EPA Regional Offices will award the cooperative agreements resulting from this announcement. It is anticipated that each EPA Regional Office will award approximately two to three cooperative agreements. Funding is contingent upon Agency funding levels, the quality of proposals received, and other applicable considerations. Visit the Urban Waters Small Grants website to learn more about the program and how to submit a proposal Here.

Upcoming Conferences & Events

Caney Fork Watershed Event

Monday, October 12, 2015 – Columbus Day!

4:00 - 6:30pm

Cherry Hill Community Center
(Next door to JBeez Rentals/Canoe the Caney)
138 John Lindsey Road
Silver Point, TN 38582

Open house format with hands-on exhibits
Meet the animals of the Caney Fork River watershed
Come and learn about the watershed and how you can be involved in protecting your resources!

Door prizes, refreshments, trolley rides down to the river and other fun!

For more information, please contact:
Tara Wohlgemuth
931-432-7614
Tara.Wohlgemuth@tn.gov

Attendees will receive a 20% discount on their next Canoe the Caney rental, good through May 15th, 2016

TN Department of Environment & Conservation

TNSA Annual Conference

October 20-22, 2015

Call For Sponsors and Exhibitors!

Join us this fall at Tennessee's premier state park, Fall Creek Falls State Park in Pikeville, Tennessee, as we explore challenges and discover solutions to the ever-changing world of stormwater management in Tennessee. Our theme is "Fall into Green".

This year's Keynote Speaker will be Bill Landry who is the voice, host, narrator, and co-producer of "The Heartland Series", which has aired on WBIR-TV for nearly thirty years. Since its beginnings in 1984, over 1,900 short features have been produced, including 150 half-hour specials. Bill's been awarded two Emmy Awards, the Education in Appalachia Award and received an honorary doctorate of Humanities from Lincoln Memorial University. The series has also received many national and international awards.

For sponsorship opportunities and additional information, please contact Charlen DeSha at charlene@tnstormwater.org or Crystal Piper at cpiper@hamiltontn.gov. For more information and registration Click Here!

www.tnstormwater.org

2015 East Tennessee Development Symposium

Vendor Space Available !

Presentation Topics Include:

Surveying, Planning, Design, Construction, Economics of Low-Impact Development, BMP Maintenance and Regulatory Compliance and Policies

15 PDH's for Engineers, Surveyors and Landscape Architects!!!

Plan to join the Tennessee Stormwater Association in Knoxville, TN as we explore challenges and discover solutions to the ever-changing world of land development and stormwater management.

November 18 & 19, 2015

Knoxville Convention Center
701 Henley Street, Knoxville

REGISTER TODAY at:

TNStormwater.org

Registration Rates:
Early Registration: $150
Registration after 10/23/15: $165
TNSA Member Registration: $145
Speaker Registration: $100

For more information:
Phone: (615) 926-7094
Email: Charlene@tnstormwater.org

HELP MAKE SHELBY COUNTY STRONGER!

www.resilientshelby.com

RESILIENT SHELBY

Join Shelby County Government to discuss the county's application to the National Disaster Resilience Competition (NDRC) – a $1 billion federal grant intended to prepare communities for future disasters and improve overall quality of life. The program seeks broad input from residents county-wide and specifically from the communities directly affected by severe storms and flooding experienced in 2011.

OCT 1st — Harvell Civic Center
6:00-7:30 • 8077 Wilkinsville Rd, Millington

OCT 8th — Golden Gate Cathedral
5:30-7:00 • 3240 James Rd, Memphis

OCT 12th — Whitehaven Library
5:30-7:00 • 4120 Millbranch Rd, Memphis

Meeting your Public Education Minimum Measure: Join the Tennessee Association of Broadcasters: TAB Program!

TNSA is continuing to work with the Tennessee Association of Broadcasters (TAB) and Stormwater Consultant, Tom Lawrence, P.E., to provide the TAB Stormwater Education Program for the 2015-2016 year.

The program works with TAB to distribute professionally developed radio and television Non-Commercial Sustaining Announcements (NCSAs) to television and radio stations throughout the State. TAB has over 330 television and radio station members in Tennessee.

Due to TNSA's relationship with TAB, all participating MS4s will be provided with NCSA airtime reporting, which can be included in your annual report as credit toward your stormwater education and outreach program. TAB states that the return-on-investment in the average NCSA program can deliver 4 to 10 times the annual expenditures!

The cost of participation is based on the population within the MS4 (see table below). TAB uses the money received from TNSA for distribution, promotion, and tracking of the NCSAs. TNSA pools the money from the individual MS4s to contract with TAB for the program to negotiate additional airtime at lower costs.

Chris Masin, Shelby CountyMS4, enthusiastically promotes TAB: " Of course Shelby County MS4 would like to participate in the TAB program for 2015. The exposure that the radio ads give the stormwater program is invaluable. The effort level to receive TDEC accepted public education credits is as simple as approving the invoice and downloading the efficiently-sent, timely reports. And the amount of value that the airtime is worth compared to the minuscule cost is absolutely mind-blowing. Count me in!"

If you would like to get an invoice for the TAB Program and receive monthly airtime reports, please contact Tom Lawrence (901-237-4819) or Charlene DeSha (615-926-7094).

Tier Level	Population	Yearly Rate	Tier Level	Population	Yearly Rate
1	25,000 or less	$400	4	100,000 or less	$1,600
2	50,000 or less	$800	5	Greater than 100,000	$2,000
3	75,000 or less	$1,200			

Rockford, Illinois to pay $330K to settle Stormwater Complaint

*By **Kevin Haas**, Sep. 20, 2015*

ROCKFORD — The city will pay nearly $330,000 to state and federal environmental protection agencies to settle a complaint that it violated clean water standards on storm water that runs into local streams and rivers.

Maintaining a storm sewer system that complies with the Clean Water Act is expected to cost about $5.3 million a year, an expense the city has already taken on this year, City Legal Director Patrick Hayes said.

Aldermen will be asked Monday to approve an agreement with the U.S. EPA and the state that sets stormwater management requirements the city must meet to avoid further penalties. The agreement includes a $329,395 penalty, with half going to the federal government and half to the state. The City Council, will also be asked to adopt a stormwater master plan for controlling flooding and ensuring the quality of water that flows through city sewers into local waterways.

The city got its first permits under the Clean Water Act in 1996 and had operated under the belief that it was meeting standards; a federal audit of the storm system in 2007 found a number of deficiencies. The city has worked toward compliance since then.

"Unfortunately, it kind of hit us all at once because we thought we were doing fine all these years (only) to find out the Illinois EPA wasn't enforcing the same requirements as the U.S. EPA would want them to," Ald. John Beck said. "It is what it is. ... It's something we have to do so we'll just do it and move forward."

The city has worked with the state and federal government since 2009 on the agreement that council members will be asked to approve Monday. It will require the city to make several commitments to storm water management, which will necessitate the ongoing $5.3 million expense. The city could face additional fines if it doesn't meet the requirements.

The agreement, called a consent decree, locks the city into "another layer of inflexibility in our budget management," Ald. Venita Hervey said last week. "It is binding us in a way that few other things do."

The city has also taken several measures to mitigate flooding, although that is not linked to the EPA requirements that led to the fine.

"The fact that we spent $10 million buying homes in Churchill Park to reduce that flood risk was something they found laudable as a governmental entity but not something that affects their sense of whether we're complying with the Clean Water Act," Hayes said.

The management plan has several facets, including cleaning the city's 30,000 storm water inlets and making storm sewer repairs, Hayes said. The city's street-sweeping program is also a part of storm water management. Clean streets means less material washing off the road surface and ultimately into the river. The city also has several improved streams, including those with a cement basin, that need to be repaired and maintained. And it conducts industrial inspections to ensure that water discharged from company property is clean.

"We use to respond to issues on complaint, or on notice there was something wrong," Hayes said. "Now we're doing a proactive inspection program." The physical work from employees, including measuring and reporting water quality to prove compliance, and the capital improvements added up to the annual $5.3 million expense.

"Even though we've already implemented most of the elements of that plan, we are adopting that as a formal action of the City Council to make sure it has a weight and authority," he said.

Low Impact Development Continues in Memphis-Shelby County After the Success of the LID Competition

In January 2015, Memphis-Shelby County Office of Sustainability and Shelby County Engineering program with support from Tennessee Chapter of the American Society of Landscape Architects received a $20,000 Green Development Grant. On June 20, over 40 community volunteers installed four rain gardens at the Peggy W. Edmiston Administration Building on Mullins Station Road.

Mayor Mark H. Luttrell Jr. said, "This rain garden installation emphasizes the importance of good conservation and stewardship of our resources, plus the event gave the citizens a way to give back through volunteer work."

Design work, plant selection, and illustrative drawings were provided by Tennessee Chapter of the American Society of Landscape Architects and earthwork by Shelby County Engineering. Memphis-Shelby County Office of Sustainability will offer multiple educational sessions to homeowners in upcoming workshops this fall.

Last year through a Green Development Grant and with the help of partners, the office hosted a two-day conference with subsequent LID design competition that drew entries from 28 firms on eleven teams. The purpose was to feature low impact development as a way to treat stormwater on site through natural infiltration. Thus far in Shelby County there are 25 under development or completed sites that have a low impact development feature such as a rain garden, porous pavement or bioswale. The Office of Sustainability expects this number will continue to increase.

To learn how to plant your own rain garden: www.sustainableshelby.com/raingardens **To watch the gardens being installed:** https://youtu.be/E1HikZ6drOg

Appeals court upholds Chesapeake Bay cleanup plan

Farm Bureau challenge turned away firmly

By Karl Blankenship, Bay Journal

The 3rd U.S. Circuit Court of Appeal Monday upheld the EPA's authority to require an expansive Chesapeake Bay cleanup plan, firmly rebuffing challenges by farm groups and a coalition of states.

The court in its 60-page ruling stated that the EPA's Chesapeake Bay Total Maximum Daily Load, or TMDL, "is reasonable and reflects a legitimate policy choice," while calling various arguments by the American Farm Bureau Federation and its allies "illogical," "unpersuasive," "defies common sense" and, in one instance, "long on swagger but short on specificity."

It was the second court defeat for the Farm Bureau, which challenged the TMDL in federal District Court only weeks after it was issued in December 2010. That challenge was rejected in 2013 by U.S. District Judge Sylvia Rambo. The Farm Bureau then appealed to the 3rd Circuit in Philadelphia.

During oral arguments last October, the three-judge panel hearing the appeal seemed skeptical of the Farm Bureau's claims, and that skepticism was repeatedly voiced in the ruling, which noted that the EPA had worked closely with the states to develop a plan to restore Chesapeake Bay water quality after earlier cleanup efforts had repeatedly failed.

"Congress made a judgment in the Clean Water Act that the states and the EPA could, working together, best allocate the benefits and burdens of lowering pollution," Judge Thomas Ambro wrote in the unanimous ruling, "The Chesapeake Bay TMDL will require sacrifice by many, but that is a consequence of the tremendous effort it will take to restore health to the Bay…a goal our elected representatives have repeatedly endorsed."

The Bay TMDL established the maximum amount of nitrogen, phosphorus and sediment that the Bay could receive and still attain water quality needed to support various healthy aquatic life, from burrowing worms to underwater grass beds to fish and crabs.

The TMDL then allocated those loads to various regions and pollution sources — regulated point source discharges and unregulated nonpoint sources of runoff — and required that states write plans showing how they could reasonably achieve those pollution reductions by 2025 (with 60 percent of the needed actions to be taken by the end of 2017).

The Farm Bureau and its allies contended that the EPA had overstepped its Clean Water Act authority in making such specific requirements. It argued that a "load" was only a single number for a waterbody, and could not be subdivided among sources and regions, charging that by doing so, the agency was in effect regulating land uses. It further said the EPA had no authority to set deadlines and require states to provide detailed cleanup plans.

The court rejected all of those arguments. Determining the amount of pollution reductions needed to achieve a clean Bay requires a detailed analysis, the court said, it "would be strange to require the EPA to take into account the specific considerations but at the same time command the agency to excise them from its final product."

It said the context of the Clean Water Act required the EPA to consider both regulated point sources and unregulated nonpoint sources of polluted runoff in its TMDL. If water bodies could simply be cleaned up by regulating discharges, the court noted, the EPA has the regulatory authority to do that without a TMDL. While the law doesn't require the agency to make allocations to both point and nonpoint sources, the court said the EPA has the authority to do so.

Regarding deadlines, the court said "it is common sense" that a timeline was intended as part of the Clean Water Act's requirements that all polluted water bodies meet their water quality goals. It noted the act itself originally called for that happening by 1985.

It also supported that EPA's contention that states provide "reasonable assurance" that cleanup goals would be accomplished by writing Watershed Implementation Plans that would be reviewed by the EPA.

It discounted the Farm Bureau's argument that the EPA was usurping state and local land use decisions through fine-scale allocations for pollution reduction limits, saying those limits were "informational tools" and that the EPA "nowhere prescribes any particular means of pollution reduction."

It also expressed skepticism that the Bay would be cleaned up without the EPA's action. "Although Farm Bureau claims that the Chesapeake Bay will be cleaned up

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Bold and the Beautiful: How Complementing Gray Infrastructure with Green Helps Ease Pressure on Stormwater Systems While Beautifying Dense Urban Environments

By Sarah Fister Gale

Rain gardens. Bioswales. Permeable pavement. These may not sound like the typical infrastructure projects for a major water utility, but in some leading cities, they are becoming a key component in the effort to better manage stormwater runoff. These projects are all elements of the green infrastructure movement, in which utilities build a series of small nature-driven initiatives that are designed to capture stormwater before it enters the "gray" wastewater treatment system.

"Green infrastructure refers to the biological process of using soil and plants to treat water naturally," said Gary Belen, senior director of the clean water supply program at American Rivers, a national non-profit conservation organization in Washington, D.C., dedicated to protecting and restoring America's rivers. And these systems provide many financial, environmental and regulatory benefits. These natural water management solutions capture the stormwater long enough to allow plants and soil to soak it up like a sponge, which helps these plants, naturally filters out non-point pollutants, and lightens the load on urban stormwater systems and overflow basins. This is especially important in crowded urban environments where the pervasiveness of impermeable roadways, buildings and other non-porous surfaces increases the volume of stormwater runoff, which can lead to overflows in combined sewer and stormwater systems.

Tom Barrett, president of Green Water Infrastructure Consulting in Indianapolis, Ind., noted that more than 179 municipalities in the U.S. have some level of combined storm and sewer system, and many of them are struggling to accommodate EPA requirements to eliminate these overflow episodes. "Green infrastructure can be a less expensive and more effective solution than a massive civil works project," he said. And they can be scaled up or down based on the changing needs of the community. This means that they can be adapted to accommodate growth in urban development or the increased frequency or severity of storm systems. "You can't do that with a 20-year gray infrastructure system," he added.

Green infrastructure also provides ancillary benefits, including more shade, reduction of heat islands, animal habitats, and overall beautification of the city. These societal benefits can have a big impact on public buy-in for infrastructure investment, said Rosey Jencks, head of the urban watershed management and stormwater planning program for San Francisco's Public Utilities Commission. "When cities invest in gray infrastructure, people can't see the benefit, but green infrastructure exists in the community space," she said.

> ***However, it is important to note that green infrastructure is not a replacement for gray infrastructure. No one is suggesting that cities tear down water treatment facilities and replace them with porous forests and rain gardens, Belen said. "It isn't a juxtaposition between gray and green," he explained. "We find that they can both be more effective when used together."***

However, it is important to note that green infrastructure is not a replacement for gray infrastructure. No one is suggesting that cities tear down water treatment facilities and replace them with porous forests and rain gardens, Belen said. "It isn't a juxtaposition between gray and green," he explained. "We find that they can both be more effective when used together."

Counting Every Drop

Green infrastructure is becoming a popular trend in the sustainable cities movement, with urban leaders rolling out various projects across their cities as a way to cost-effectively manage stormwater while benefitting from the public image that comes with going green.

Philadelphia was one of the early adopters in this movement, rolling out an $800-million green infrastructure plan in 2013 that includes dozens of rain gardens, infiltration beds and porous pavement alleys and driveways throughout the city. Though Philly is far from alone: In recent years, other major cities, including Chicago, San Francisco, New York, Denver, and Washington, D.C., have rolled out their own green infrastructure plans in the quest to solve combined sewer overflow issues without adding massive new treatment facilities.

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The projects themselves are relatively simple. They often require simply reworking corner parks and boulevards into rain gardens and replacing blacktop roads and roofs with more absorbent alternatives.

But while these projects are small and easy in theory, they require a big culture change to even be considered by most water utilities. These projects don't fit the traditional wastewater treatment construction process, and there are no regulations, standards or building codes governing how or where these projects should be implemented, Barret said. Lack of knowledge about what they are and how they work -- among both water treatment engineers and the public at large -- can make it difficult to secure buy-in and financing even for pilot projects.

They also use land and resources in a totally different way, said Jencks. Project investments tend to be small and dispersed across the city as opposed to centered in a massive facility. "It's more akin to urban design than wastewater infrastructure," she said.

Despite these obstacles, forward-looking city leaders have been funneling more resources into green infrastructure projects to at least test their viability. San Francisco for example, earmarked $400 million as part of its multi-billion, 20-year Sewer System Improvement Program (SSIP) for eight green infrastructure pilot projects, including the addition of rain gardens and permeable paving along the city's famous 'Wiggle' bike route.

To ensure that these projects deliver demonstrable impact, each project plan includes key performance indicators to measure how much stormwater they divert from the sewer system during any given storm, Jencks said.

Being able to measure

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Floating Treatment Wetlands Show Promise as Pond Retrofit

Floating treatment wetlands (FTWs) are an emerging innovation in green technology that have demonstrated significant potential for stormwater management. Research efforts and pilot installations in the U.S. and elsewhere have shown strong potential for the use of FTWs to remove nutrients and other contaminants from stormwater retention ponds.

FTWs are designed to float on the surface of a wet pond, providing a growing medium for emergent wetland plants. Floating mats or rafts are built in a way to support vegetation grown hydroponically — plant stems are held above water level with the roots submerged below the surface. This enables plants to draw in nutrients from the water column.

While FTWs represent a relatively newer option in stormwater treatment — gaining attention only in recent years for their potential to reduce nutrients and other contaminants — independent trials on these systems can be traced back as far as three decades.

Read more.

Floating treatment island at Centennial Park, Nashville, TN

TDEC Solid Waste Management grant cycle open for Recycling, Waste Oil and Waste Reduction

TDEC Solid Waste Management grant cycle for Recycling, Waste Oil and Waste Reduction is now open and **deadline for applications is October 1, 2015**. Details: http://tn.gov/environment/article/sw-solid-waste-grants

Bold and the Beautiful: How Complementing Gray Infrastructure with Green Helps Ease Pressure on Stormwater Systems While Beautifying Dense Urban Environments

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the impact of these green projects is critical to helping public utilities and their funders embrace the concept of rain gardens and other green projects as a viable solution for stormwater management. While it may seem like measuring the impact of a rain garden or permeable alleyway would be next to impossible, it is in fact surprisingly easy, according to Jencks. "Water goes into the soil in a pretty predictable way," she said, noting that her team uses similar parameters to track water absorption as they would any other piece of infrastructure. "You size a rain garden the same way you size a pipe," she added. "It just requires a new way of thinking."

Jencks's team identified the areas of the city most sensitive to stormwater, then built flow monitors to study performance. Based on that data, which included average rainfall and flow rates, they were able to predict the amount of water that would be transferred into the environment and away from sewers. "The assumptions used in the model have been very accurate," she said. And in many cases, projects have produced even better than expected results.

Plant Gardens Not Tunnels

DC Water will rely on similar models to demonstrate the benefits of its recently launched green infrastructure plan. In May of this year, the utility announced its intention to abandon plans to build the Rock Creek underground tunnel as part of its Clean Rivers Project and will instead install a series of green infrastructure projects and targeted sewer separation to manage the volume of runoff produced by 1.2 inches of rain falling on 365 impervious acres of land that currently do not absorb stormwater. The green infrastructure piece of the project will include rain gardens, bioswales, porous pavement, and green roofs designed to capture and clean runoff. The utility also plans to shrink the tunnel project for the Potomac site near Georgetown, as well as use gravity, rather than an energy-intensive pumping station, to passively transfer the contents to the city's Blue Plains wastewater treatment plant.

George Hawkins, CEO and general manager of DC Water, has been pushing for green infrastructure since he took the job more than five years ago, but he struggled to get the projects approved because of existing consent decrees that put virtually all future investments into gray infrastructure. "It took years to make it happen, but we are pleased that it is moving forward now," he said.

Hawkins noted that recent advances in measuring the impact of green infrastructure will make it easier for him to demonstrate the benefits of the first round of projects and hopefully spur future investments. "Over time, the impact of these projects has become much easier to define," he said. "Now, we can measure how much water a bioswale can hold almost exactly as well as we can measure the capacity of a tunnel."

However, Hawkins conceded that the predicted impact will only be accurate over the long term if the green infrastructure is properly maintained, which could be tricky. Because these projects are small and spread across the city, maintenance can be difficult to deliver -- or verify. "Bioswales can fill up with silt and muck, and if you don't dig them out, it blocks infiltration of water," he said. That means stormwater will head right back into the sewer system. Maintenance gets even more complicated when these projects are built on private land or on the rooftops of public or commercial buildings, where building managers and land owners are charged with keeping them operational.

"Our job now is to capture the imagination of the city and to educate them on what green infrastructure is and why it's important," Hawkins said. His team plans to place signage in high-traffic areas and to offer training to private individuals who implement green infrastructure designs on their own property. It will be a challenge, and Hawkins expects to face some pitfalls as they ramp up investments in these projects, but he is confident the addition of green infrastructure to his gray system will only deliver positive economic and social benefits. "I'd encourage any city facing a combined sewer overflow challenge to consider a hybrid green and gray approach," he said.

"The two systems complement each other, and they should both be a natural part of how we handle this issue."

United States: EPA And The Army Corps Seeking To Consolidate Challenges To Recently Issued "Waters Of The United States" Rule

Article by Robert J. Uram, Sheppard Mullin Richter & Hampton

Since the EPA and the Army Corps published the final Clean Water Act rule defining "waters of the United States" on June 29, 2015, 72 plaintiffs have filed ten separate complaints in eight federal district courts challenging the final rule. Additional district court actions raising facial challenges to the rule are expected to be filed in the near future. Plaintiffs in some of these cases have already filed motions for preliminary injunctions seeking to bar application of the rule.

In addition, multiple parties have filed petitions for review of the final rule in eight circuit courts of appeal. These suits are filed under 33 U.S.C. § 1369(b)(1), which provides for exclusive judicial review in the courts of appeals for certain actions of the EPA Administrator. 33 U.S.C. § 1369(b)(1).

In response to the flood of litigation, the EPA and the Army Corps are seeking to take advantage of judicial procedures that allow lawsuits presenting common issues to be consolidated in a single court. The Judicial Panel on Multi-District litigation hears petitions seeking consolidation of federal cases. The MDL Panel is located in Washington, D.C. and consists of seven sitting federal judges, who are appointed to serve on the Panel by the Chief Justice of the United States. The multidistrict litigation statute provides that no two Panel members may be from the same federal circuit. Judge Sarah Vance, from the Eastern District of Louisiana, is the current Chief Judge.

On July 27, 2105, the EPA and Army Corps filed a motion with the Panel to consolidate the pending (and future) district court actions in the District Court for the District of Columbia. Their petition argues that the cases "satisfy the standard for transfer and consolidation because: (a) they involve one or more common questions of fact; (b) transfer and consolidation of the cases would further the convenience of parties; and (c) transfer and consolidation would promote the just and efficient conduct of the actions. *See* 28 U.S.C. § 1407(a). And, as explained below, the United States District Court for the District of Columbia is well-suited to handle these overlapping and complex cases and it is the court most convenient for the parties."

The key hurdle for the United States to overcome in obtaining consolidation is to show that the matters involve common questions of fact. The motion asserts the standard is met in three areas: the sufficiency of the factual and scientific evidence relied upon by EPA and the Army in adopting the rule; the assertions that the EPA and Army Corps failed to respond to comments; and the sufficiency of the public notice and issues raised in the rulemaking. Each of those issues, the United States argues, qualify the matters for consolidation.

Level I & II TNEPSC, Permanent Stormwater Design & TN-HDT Courses Schedules

TNEPSC Level I Certification Course	
October 8, 2015	Chattanooga
October 27, 2015	Clarksville
November 4, 2015	Memphis
November 12, 2015	Johnson City
December 7, 2015	Nashville
December 9, 2015	Knoxville
December 14, 2015	Chattanooga

TNEPSC Level II Certification Course	
October 29 & 30, 2015	Nashville
November 17 & 18, 2015	Chattanooga

Permanent Stormwater Management Design Course	
November 10, 2015	Knoxville
December 2, 2015	Nashville

TNEPSC Level I Recertification Course	
October 6, 2015	Jackson
October 7, 2015	Nashville
November 3, 2015	Memphis
November 13, 2015	Johnson City
December 3, 2015	Nashville
December 15, 2015	Chattanooga
December 17, 2015	Knoxville

TN-HDT Refresher Course	
October 28, 2015	Nashville
November 20, 2015	Knoxville

Please contact Tim Gangaware with questions or visit the website: http://tnstormwatertraining.org/ or http://tnhdt.org/ or http://tnepsc.org/

City of Memphis awarded a Clean Tennessee Energy grant of $80,000

TDEC will recognize a recent Clean Tennessee Energy grant of $80,000 awarded to the City of Memphis. The presentation will take place September 29 at the Lichterman Nature Center.

The City of Memphis Division of Parks and Neighborhoods plans to implement a 50-kilowatt solar array at the Lichterman Nature Center, which is visited by 40,000 students annually. This would be the first solar installation on City of Memphis property.

The pilot project is part of a larger initiative that has identified 20 other locations for solar installation, as part of its "Clean and Green Initiative." The entity will see energy cost savings of at least $7,200 annually and will generate 65,700 kilowatts per hour (kWh). Annual emissions reductions are expected to be roughly 68 tons of carbon dioxide. The solar array will be accompanied by a real-time readout on a display and will serve as an inter-

Webinars

1. EPA Pollution Prevention Webinar: Oct 1, 2015 12:00 – 2:00 PM EDT Stormwater Standards for the future: How modelled pollution load reductions can result in adoption of up-to-date stormwater standards. Register Here!

2. New Tools to Measure Environmental Benefits of Watershed Restoration Webinar on October 14, 2015 Register Here Join us and explore new tools to measure and track the environmental benefits from watershed conservation and restoration projects. The main focus will be the **StreamBank® BasinScout** suite of tools, which are used to coarsely survey large landscapes and watersheds to estimate the potential for different types of environmental benefits and to prioritize restoration actions.

3. EPA Grants Award Process Seminar: EPA's Office of Grants and Debarment is hosts a recurring webinar for the external EPA grants community. The webinar lasts about an hour and cover grants topics, including: how to find and apply for grant opportunities; EPA's Grants.gov requirement; and preparing a proper budget detail. http://www.epa.gov/ogd/training/grantaward.htm.

4. Watershed Academy Webcast on Implementing Low-Cost Modifications to Improve Nutrient Reduction at Wastewater Treatment Plants

Please join us for a webcast on October 15 at 1:00pm to 3:00pm Eastern on a recently released draft report on "Case Studies on Implementing Low-Cost Modifications to Improve Nutrient Reduction at Wastewater Treatment Plants."

The Freshwater Trust

EPA is also interested in learning of additional communities' successes and intends to update this document to help more of the nation's WWTPs make progress towards additional nutrient reductions. Comments and additional case studies can be submitted by December 15, 2015 to POTWOptiNP@epa.gov. The draft report is available at: http://www2.epa.gov/nutrient-policy-data/reports-and-research#reports. Register for the webcast at the new Watershed Academy Website in Drupal at http://www2.epa.gov/watershedacademy.

5. Effective Utility Management Review Webinars: Webinar 1 October 15, 2015, 2:00-3:30pm EDT Register Here or **Webinar 2** October 20, 2015, 12:00-1:30pm EDT Register Here

In light of the challenges facing today's water sector utilities, the United States Environmental Protection Agency (EPA), the Association of Clean Water Administrators (ACWA), the Association of Metropolitan Water Agencies (AMWA), the American Public Works Association (APWA), the Association of State Drinking Water Administrators (ASDWA), the American Water Works Association (AWWA), the National Association of Clean Water Agencies (NACWA), the National Association of Water Companies (NAWC), and the Water Environment Federation (WEF) have convened a group of utility and states leaders to review the Effective Utility Management (EUM) framework, including the Ten Attributes of Effectively Managed Water Sector Utilities, and the Five Keys to Management Success, which appear in the 2008 document, **Effective Utility Management: A Primer for Water and Wastewater Utilities**

Please join us for a webinar to provide feedback on the Ten Attributes and Five Keys to Management Success and possible revisions in light to the today's challenges.

EPA Develops Handout Summarizing its Climate Change Adaptation Tools

EPA's National Water Program has developed a handout summarizing the tools developed by the agency for state, tribal, and local governments and others to adapt their clean water and drinking water programs to a changing climate.

Tools include, among others, a Storm Surge Inundation and Hurricane Strike Frequency Map; a Workbook for Developing Risk-Based Adaptation Plans; a Flood Resilience Guide for Water and Wastewater Utilities; and a National Stormwater Calculator with Climate Scenarios.

Click here to download the handout.

Click here to access the handout and other climate change and water resources

City of Jackson, TN Wins a 2015 National Award for Smart Growth Achievement

The U.S. Environmental Protection Agency (EPA) today recognized projects in three communities as winners of the 2015 National Award for Smart Growth Achievement. Winners include a new public park on a formerly contaminated site along the Passaic River in Newark, N.J. and new mixed-use developments that are spurring investment and revitalization in Jackson, Tenn. and Hamilton, OH.

This award is given annually for creative, sustainable initiatives that better protect the health and environment of our communities while strengthening local economies. The 2015 award is presented to projects in three categories: Plazas, Parks, and Public Places; Corridor or Neighborhood Revitalization; and Built Projects.

"As part of our commitment to help communities grow in ways that protect the environment and support local goals, EPA is pleased to recognize the winners of this year's National Award for Smart Growth Achievement," said EPA Administrator Gina McCarthy. "The smart growth strategies behind this year's award winners are making a visible difference in their communities, and they provide models that can guide and inspire many others."

The winners are:

1. Category: Plazas, Parks, and Public Places, Riverfront Park, Newark, N.J. and Essex County, N.J.
2. Category: Built Projects, City of Hamilton and Historic Developers Public-Private Partnership, Hamilton, OH
3. **Category: Corridor or Neighborhood Revitalization, Jackson Walk, Jackson, Tenn.**

For years, Jackson, Tenn. has struggled to revitalize a declining downtown. In 2003, powerful tornados ripped away much of the downtown, destroying property and displacing residents and businesses. Jackson used the disaster as an opportunity to bring residents together to create a new vision for the downtown. That vision guided the development of Jackson Walk, a 20-acre mixed-use redevelopment district around a cleaned-up brownfield site that now provides affordable homes, new businesses, and a wellness center with an urgent care clinic. Increased property values have generated new tax revenues, and from 2012 to 2014, more than 30 new businesses opened, bringing jobs.

Award winners were chosen based on their effectiveness in creating sustainable communities; fostering equitable development among public, private, and nonprofit stakeholders; and serving as national models for environmentally and economically sustainable development.

EPA created the National Award for Smart Growth Achievement in 2002 to highlight exceptional approaches to development that protect the environment and public health, encourage economic vitality, and enhance quality of life. To date, more than 900 communities have applied for the award. Sixty-two communities from 26 states have been selected for smart growth approaches that other states, tribes, cities, suburbs, and rural communities can use to create economically strong, environmentally responsible development. EPA's Office of Sustainable Communities manages the awards program.

More information on the winners, including pictures and videos: http://www2.epa.gov/smartgrowth

Free Report: The Insider's Guide to Rainwater Harvesting

Forester Network: New rainwater harvesting white paper outlines challenges, benefits, and techniques.

With drought conditions in the west, stressed and degrading water infrastructure, and water utility bills rising across the country, harvesting rainwater is becoming a hot topic. Rainwater harvesting makes sense by utilizing rainwater where it falls, without transporting it via stormwater systems. *Water Efficiency* magazine editor, Nancy Gross has collected multiple contributions from our expert writers at Forester Media on the topics of rainwater harvesting to bring you the latest applications of onsite rainwater capture and use.

This paper presents various methods for what is better known as rainwater harvesting. Incorporating rainwater and stormwater best management practices (BMPs) illustrate how to avoid wasting water as a resource and how to contain and filter stormwater runoff pollution, keeping water in the watershed.

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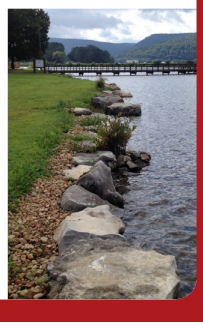

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American Rivers And Partners Petition EPA To Control Stormwater

Liz G. Deardorff, American Rivers

Leaving no stone unturned, or more accurately no significant stormwater source uncontrolled, American Rivers, the Natural Resources Defense Council and Clean Air Council petitioned the U.S. Environmental Protection Agency (EPA) to ensure control of significant sources of pollution that contribute to costly local clean-up efforts and are not already adequately addressed by urban stormwater programs.

In the Delaware River basin, stormwater runoff is the most common clean water problem—storms wash nutrients from exposed soils, erode streambanks, and carry pollutants of off hard surfaces such as rooftops and roadways. There is a strong correlation between these impervious or hard surfaces and degraded water quality in our streams. Where there are large areas of imperviousness, cities bear the cost of treating drinking water and cleaning streams that flow to downstream communities. Yet cities do not have the ability to control some of the most significant polluted stormwater runoff at its source when it is generated on private property. Controlling polluted stormwater runoff on the site of private commercial, industrial and institutional facilities with large areas of impervious surface will greatly reduce pollution in streams and the burden of clean up for localities.

Take a look at the small watershed of Army Creek in New Castle County, Delaware, just south of the city of Wilmington. The watershed is less than 8,000 acres and flows directly into the Delaware River. It serves an urban residential population and much commercial and industrial activity. This creek, as its name implies, is a workhorse. Notable clean ups of pollutants such as dioxin and PCBs from past activities have already occurred to help this creek continue its service and maintain healthy flows to support the diverse Delaware River estuary habitat. But, Army Creek is also on the state's list of impaired waterways because of excess nutrients or nitrogen and phosphorus pollution. Nearly 32% of the watershed's land area is commercial, industrial or institutional and 80% of that land use is within half a mile of Army Creek. Models estimate that, out of all urban stormwater sources, these land uses in Army Creek's watershed contribute 34% of total phosphorus pollution and 39% of total nitrogen pollution. The large swaths of hard, impervious surfaces associated with these commercial, industrial and institutional land uses likely contribute four times the nutrient pollution loads that Army Creek watershed would receive under natural land cover from the entire watershed.

In the Army Creek watershed, in watersheds throughout EPA Region 3 and across the nation, these significant contributors of polluted stormwater runoff to impaired waterways represent a gap in stormwater management programs and a costly clean-up burden to localities receiving polluted runoff to their stormwater infrastructure system. These polluting sources fall outside of existing controls such as 1) Delaware's urban stormwater permit (or MS4) for which New Castle County is the permit holder and permit requirements are limited to permit holder controlled land, 2) management practice requirements for control of runoff at new development or redevelopment sites that do not apply to existing development and 3) control of typical point source pollutants such as the PCBs and dioxins or those treated as wastewater and then discharged directly into the Delaware River. Fortunately, EPA can help…

The Clean Water Act has a provision called residual designation authority (RDA). If EPA determines that a sector or category of stormwater discharge sources are contributing to water quality violations, the agency must exercise its authority—RDA– and require those polluters to have permits which will direct steps toward pollution reduction.

We have petitioned EPA to use RDA to require contributors of stormwater runoff to work under a permit to manage their stormwater and ensure Army Creek can deliver clean water to the Delaware River. Since green infrastructure practices such as green roofs, rain gardens and porous pavement offer sustainable and cost-effective ways manage stormwater from large areas of imperviousness, RDA can also drive benefits within Army Creek such as safer communities, cleaner air, flood damage reductions and more attractive industrial, commercial and institutional sites. Saleem Chapman, Director of Policy and Strategy at Clean Air Council says "experience developing green infrastructure solutions in Delaware demonstrates the advantages of these types of clean water projects to overall local community health."

Our petitions ask EPA to use RDA so significant sources of stormwater pollution will no longer be unpermitted, uncontrolled, burdening localities and impairing waterways. RDA can help reduce polluted stormwater reaching Army Creek within New Castle County and other urban watersheds and communities throughout EPA Region 3. Read More

Read the Army Creek petition for EPA Region 3 to exercise RDA [PDF]

Read the petition for Back Creek within the Chesapeake Bay [PDF]

Read about petitions in EPA Region 9, California

Interesting to note that NRDC and American Rivers also filed a similar suit in Los Angeles: **Environmental Groups Petition EPA to Make Polluters Pay for LA Water Contamination**

-Jennifer Watson

Downloadable Stormwater Management Pamphlets—City of Durham, N.C.

The City of Durham. NC has series of easy-to-read guides for proper management of (waste) water for businesses such as mobile vehicle washers, one for power washing, and for landscapers etc as well as guides for other types of businesses (e.g. directional drilling for fiber optic cable) at the following URL: http://durhamnc.gov/802/Information-for-Businesses

TENNESSEE STORMWATER ASSOCIATION

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Purpose

The mission of the Tennessee Stormwater Association (TNSA) is to assist local government entities in their efforts to comply with State and Federal clean water laws and Stormwater Regulations promulgated by the Environmental Protection Agency and the Tennessee Department of Environment and Conservation; and through such assistance, to protect and improve the quality of the waters of Tennessee. This mission will be accomplished through TNSA members' exchange of information and knowledge regarding the design, construction, maintenance, administration and operation of stormwater facilities. The TNSA will promote the dissemination of information in stormwater control measures and the adoption of improved practices in stormwater administration.

Members

TNSA membership is composed of designated Municipal Separate Storm Sewer Systems (MS4s) including local governments (city and county), universities, military installations, and other entities such as TN Department of Transportation (TDOT). Associate members include environmental advocacy groups, non-profits, Tennessee State, substate or federal government entities consultants. Private sector membership is available to for-profit engineering, scientific and management firms or other organizations with an interest in stormwater.

Appeals court upholds Chesapeake Bay cleanup plan

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without EPA intervention, their contention defies common sense and experience," noting that 62 percent of the Bay had insufficient oxygen in 2010, even though the Clean Water Act called for cleaning up the nation's waters by 1985.

The case was intensely watched by environmentalists, local governments, states, farm organizations and others.

The Farm Bureau, joined by the National Association of Home Builders and numerous agricultural trade organizations, feared that the TMDL could set a precedent for other areas and ultimately lead to greater regulation of farming and construction activities. Twenty-one state attorneys general from other parts of the country filed a brief supporting the Farm Bureau's position.

On the other side, environmental groups joined the EPA's side, along with a number of cities and municipal water authorities who worried that they would face greater cleanup burdens if agricultural pollution was left unchecked.

In a statement, the EPA praised the ruling.

"Affirming a 2013 lower court ruling, this unanimous Third Circuit decision is a victory for the 18 million people in the Chesapeake Bay watershed," it said. "We can all now as partners continue to build on the progress made in restoring local waters and the Bay. We remain committed to revitalizing this national treasure through the collaborative federal-state framework with the six Bay states and DC."

Will Baker, president of the Chesapeake Bay Foundation, one of the groups that had joined the suit on the EPA's side, said "this is a good day for Bay water and it's a good day for all 17 million people who live in the Chesapeake Bay watershed."

He called upon groups who brought the suit to drop further legal challenges. "Clean water should be a right and not a luxury we have to fight for," he said.

A spokesman for the American Farm Bureau Federal said the organization was reviewing the decision and would likely not have any formal comment for several days.

Two Useful Green Infrastructure Reports

September 2014 Evaluation of Green Roof Water Quantity and Quality Performance in an Urban Climate by many contributors published by the U.S. EPA

July 2012 NASA & Green Roof Research: Utilizing New Technologies to Update an Old Concept by NASA

Advisory Finally Lifted for Tennessee Creek Segment

A water contact advisory for 1.8 miles of Oostanaula Creek in Athens, Tenn., in place for more than 30 years, has been lifted.

In an Aug. 17 announcement, the TDEC said the advisory was posted in 1984 due to bacterial contamination blamed on inadequately treated effluent from the Athens wastewater treatment plant, urban stormwater runoff, "chronic" collection system overflows and a high concentration of livestock upstream.

The TDEC said the advisory has been lifted due to "dramatically" improved water quality resulting from treatment plant upgrades, overflow and stormwater prevention efforts, the restriction of cattle access to the creek and changes to stream contour and flow.