



MS4 Storm Water Compliance & Assistance Program Update

May 2009

TDEC, Division of Water Pollution Control Storm Water Contacts:

Robert Karesh,
Storm Water Coordinator
(615)-253-5402
Robert.Karesh@tn.gov*

Jim McAdoo
Permit Section
(615) 532-0684
Jim.McAdoo@tn.gov*

Jennifer Watson
(615) 532-0359
Jennifer.Watson@tn.gov*

*Email addresses have changed

Update! Qualified Local Program Advisory Committee Meeting

At the April 7, 2009, meeting of the **QLP Advisory Committee**, Robby Karesh provided an update on the incentives the committee has been actively working through, including waiving annual MS4 permit fees and developing TDEC Minimum Requirements for Qualified Local Program Certification. During this meeting, the committee decided that the minimum requirements would be dependent on a QLP's Scope of Services and Levels of Service. John Chlarson, MTAS, recruited several volunteers to work on these scopes and levels of service before the next QLP meeting on July 28, 2009.

These committee meetings have been a resounding success and we are successfully developing viable and appealing incentives to encourage MS4s to consider becoming a Qualified Local Program in the future. We appreciate the time, interest, and effort displayed by our private and public stakeholders. Thank you!

Managing Wet Weather with Green Infrastructure

EPA has been hosting a series of informative Webcasts on **Managing Wet Weather with Green Infrastructure**. The remaining webcast schedule is below:

May 12, 2009

Site Planning & Design Considerations, Dan Christian TetraTech
Costs & WERF Cost Tool, Lisa Hair, U.S. EPA & University of Utah

June 23, 2009

Funding & Incentives, Abby Hall, U.S. EPA
Brownfield Redevelopment, Stacy Swartwood, U.S. EPA

July 28, 2009

Retrofits: Green Streets, Chris Kloss, Low Impact Development Center
Operation & Maintenance, Tracy Tackett, Seattle Public Utilities

All webcasts are two hour audio web broadcasts held from 1:00—3:00 pm Eastern time.
http://cfpub.epa.gov/npdes/home.cfm?program_id=298

Inside this issue:

<i>Next Tennessee Storm-water Association Meetings</i>	Pg. 2
<i>Useful Green Infrastructure and LID Links</i>	Pg. 2
<i>City of Athens Flood Mitigation Study</i>	Pg. 3
<i>Grant Opportunities</i>	Pg. 4

Great American Clean-up



Keep America Beautiful selected Nashville as a **national spotlight host city for the 2009 Great American Cleanup** — the largest coordinated event nationwide. Tennessee has been recognized the last 2 yrs for being the only state to have EVERY county participate. A Kickoff Ceremony will be held at 11:00 am on **May 14, 2009**, at the Bicentennial Mall in Nashville. Open to the public from 10 AM—3:30PM. www.kab.org

Watershed Academy Web: EPA's Online Training in Watershed Management

EPA's Watershed Academy, <http://www.epa.gov/watertrain/index.htm>, offers a variety of self-paced training modules that represent a basic and broad introduction to the watershed management field. The modules are organized by six themes: *Introductory/Overview, Watershed Ecology, Watershed Change Modules, Analysis and Planning, Management Practices, and Community/Social/Water Law*. Modules vary in the time they to complete, from ½ hour to 2 hours. Fifteen of them are the core modules for the Watershed Academy Certificate Program.

Certificate Program

You can document your learning from this Web site by meeting the requirements for Watershed Academy Web's **Watershed Management Training Certificate**. This certificate program recognizes trainees who complete 15 modules and pass their self-tests. <http://www.epa.gov/watertrain/intro/certprogram.html>





Useful Green Infrastructure and Low Impact Development Links

LID Center: Green Streets

<http://www.lowimpactdevelopment.org/greenstreets/index.htm>

Green Infrastructure: The Conservation Fund

The Green Infrastructure Community of Practice (GI CoP) is a collaborative network of organizations and agencies that are actively involved in promoting and/or implementing the green infrastructure approach to strategic conservation <http://www.greeninfrastructure.net/>

Green Roofs for Healthy Cities' mission is to increase the awareness of the economic, social, and environmental benefits of green roof infrastructure across North America and rapidly advance the development of the market for green roof products and services. http://greenroofs.org/index.php?option=com_frontpage&Itemid=1

Green Infrastructure's Public Gallery: <http://picasaweb.google.com/buildgreeninfrastructure/>

Stormwater Management: Using trees and Structural Soils to improve Water Quality

<http://www.cnr.vt.edu/urbanforestry/stormwater/>

Center for Watershed Protection; <http://www.cwp.org/>

Green Values Stormwater: <http://greenvalues.cnt.org/>

Incorporating Environmentally Sensitive Development Into Municipal Stormwater Programs Fact Sheet:

http://www.epa.gov/npdes/pubs/region3_factsheet_lid_esd.pdf

Video Shows Green Practices to Manage Stormwater Runoff

(Washington, D.C.– Jan. 15, 2009) The U.S. Environmental Protection Agency and the U.S. Botanic Garden produced an on-line video, "Reduce Runoff: Slow It Down, Spread It Out, Soak It In," that highlights green techniques such as rain gardens, green roofs and rain barrels to help manage stormwater runoff.

The film showcases green techniques that are being used in urban areas to reduce the effects of stormwater runoff on the quality of downstream receiving waters. The goal is to mimic the natural way water moves through an area before development by using design techniques that infiltrate, evaporate, and reuse runoff close to its source.

The techniques are innovative stormwater management practices that manage urban stormwater runoff at its source, and are very effective at reducing the volume of stormwater runoff and capturing harmful pollutants. Using vegetated areas that capture runoff also improves air quality, mitigates the effects of urban heat islands and reduces a community's overall carbon footprint.

The video highlights green techniques on display in 2008 at the U.S. Botanic Garden's "One Planet – Ours!" Exhibit" and at the U.S. EPA in Washington, D.C., including recently completed cisterns. To watch the video: <http://www.epa.gov/nps/lid>
More information on stormwater management: <http://www.epa.gov/greeninfrastructure>

Next Regional Tennessee Stormwater Association Meetings

Additional details on dates, times, and locations will be emailed when updated.

Region	Venue	Date & Time
West Tennessee	Union City	June 2, 2009, 1:30 P.M.
Middle Tennessee	Franklin City Hall	July 16, 2009, 1:30 P.M.
East Tennessee	Knox County Soil Conservation District Office 205 Baxter Avenue, Knoxville, TN 37917	May 2009
Northeast Tennessee	Gray Commons/Fire Station on Hwy 75 Gray, Tennessee	July 2009
Southeast Tennessee	Development Resource Center, Conference Room 1A	July 14, 2009, 10 AM..



City of Athens Flood Mitigation Study

On January 6, 2009, the City of Athens experienced a 10-year flood event. Public Works Director and Stormwater Program Manager, Shawn Lindsey, viewed this flood event as an excellent opportunity to evaluate their storm water program performance.

During the storm, city crews began gathering as much data as possible about this storm event in the form of pictures, eye witness accounts, and complaints. All this data was entered into a GIS database and analysis maps were created to determine the most effective city-wide corrective actions, both long-term and immediate.

This flood mitigation study, showed that additional regional detention areas were necessary, as well the immediate need to resize culverts, clean out ditches, and install outlet flow adjusters to allow more controlled releases of water into the system. Mr. Lindsey also determined through this exercise that existing private detention ponds would now be inspected every spring and fall and property owners would be expected to fix the problem within 30 days of notification.

The flood mitigation study also identified eroding driveways as a costly and recurrent problem within the city limits. In response, the City has offered to pave driveway aprons on the city rights-of-way.

In an holistic effort to become more proactive in dealing with water quality and increased stormwater generation, Mr. Lindsey has developed a three step plan for the City: 1. Raise Awareness; 2. Tools and Planning; and 3. Construction and Rehabilitation. The first step was to raise awareness in the community, which he is accomplishing with the assistance of the following grant awards:

Tennessee Department of Agriculture 319 Grant: Developed an Oostanaula Watershed Group. Through this grant, Mr. Lindsey also worked with TDEC and members of the watershed group to complete the first bacteriodes testing in the state. This new technology identified the source of *e coli* in this watershed was from cattle.

Tennessee Wildlife Resources Agency Creek Clean UP Grant 2005-2009: Athens began doing an annual creek clean up using Tennessee Wesleyan College students as a source of volunteers and \$1,000 dollar grants from the TWRA to finance tee-shirts for the groups.

TDEC- 2006 Used Oil Grant: A grant from TDEC to not only purchase used oil heaters, but also to purchase an Enviro-scape, to educate groups of adults and children in water quality and quantity.

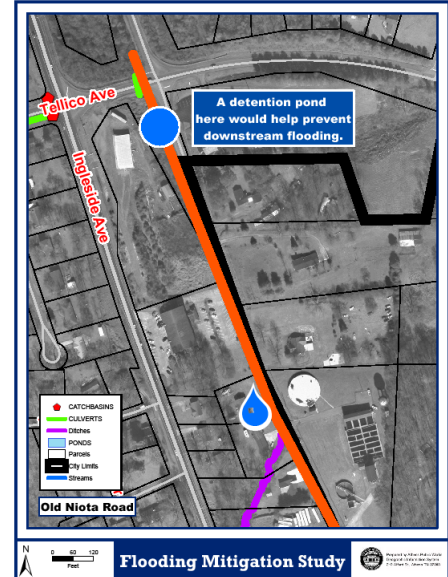
Tennessee Valley Authority - Watershed Brochure 2007: The TVA financed the development of a North Mouse and Oostanaula watershed brochure that was in color and mailed to all subscribers of the Daily Post-Athenian. The City continues to give these out to help increase the awareness of its watersheds and their problems.

TVA- 2008 Grant: The TVA granted the City \$16,000 to produce 25,000 maps/brochures of the local area along with water quality data. The remaining monies was used to finish the City's TMDL required water monitoring and promote the 2008 Household Hazardous Waste event. The grant paid for a promotional commercial and increased attendance by 63%.

Mr. Lindsey is presently working on Step 2: **Tools and Planning**. The City's Community Development Department, along with the Planning Commissions throughout the region, are revisiting codes and making changes. City personnel are also conducting visual stream surveys this year to identify sources of flooding, illicit discharges, and erosion. The plan is to complete step 2 over the next two years. Mr. Lindsey has applied for various additional grants to encourage low impact development and to help subsidize the financial cost of improving regional detention and bank stabilization. The most recent grant award was:

2009 Green Development Grant: The City is building a green parking lot through a joint venture between the City of Athens and the YMCA using a Green Development Funding Grant of \$30,000. This will produce a zero impact parking lot complete with completely pervious pavement, rain gardens, green roof, pervious concrete, and vegetative swales. This parking lot will serve as a tool to teach the community and developers how to build a low impact parking lot.

Step 3: **Construction and Rehabilitation**, includes the rehabilitation of the local streams and installation of regional detention facilities in appropriate areas as determined by the results of Step 2. Mr. Lindsey also recognizes the need to eliminate the current erosion problems in local creeks, stabilize the banks, and mitigate the pathogen issues from the surrounding agricultural sources. Once all these steps are accomplished, the City's creeks will have a greater chance of being removed from the state's 303d list of impaired streams and the community will benefit from healthy streams, good water quality, and reduced flooding events.





Grant Opportunities

Partners for Fish and Wildlife

Partners for Fish and Wildlife are the U.S. Fish and Wildlife Service's habitat restoration cost-sharing program for private landowners. The program was established to offer technical and financial assistance to landowners who wish to restore wildlife habitat on their property. The assistance provided by the U.S. Fish and Wildlife Service can range from giving informal advice on the design and location of a potential restoration project, to designing a project and funding up to fifty percent of the implementation cost under a formal cooperative agreement with the landowner. For more information about the Partners for Fish and Wildlife Program in Tennessee, contact the Brad Bingham, State Private Lands Coordinator at the Cookeville Field Office of the U.S. Fish and Wildlife Service, at 931-528-6481; or visit us on the internet at www.fws.gov/cookeville/docs/partners.html

TWRA Announces Availability of Grants for 2009-10 Stream Clean-Up Projects

NASHVILLE --- The Tennessee Wildlife Resources Agency (TWRA) announces the availability of grant dollars to assist cities, schools, community organizations, civic groups, watershed organizations, and conservation groups, etc., with stream clean-up projects for the fiscal year 2009-10.

The grant money could be used to buy supplies, such as rakes, work gloves, and garbage bags. In addition, the funds could be used to pay disposal fees for solid waste and tire removal or to provide promotional items such as project advertisement or T-shirts and refreshments for volunteer support.

Five grants, at \$1,000 each, are available for each of TWRA's four regional Aquatic Habitat Protection projects (a total of \$5,000 per region). The funds will be obligated as grants, so the grantee must have a nonprofit tax number. The projects are to be completed, the money spent, and a report submitted by June 30, 2010. In order to meet this deadline, TWRA would need to receive the proposals as soon as possible.

Grant proposals should include the applicant organization's name, tax ID number, address, phone, and name of a contact person authorized to enter into contractual agreement on behalf of the organization. The proposal should also include the name of the stream, county or counties involved, and the project area and description.

Please contact David McKinney, TWRA Chief, Environmental Sciences, at (615) 781-6577 or by e-mail at Dave.McKinney@state.tn.us if you have any questions.

EPA Launches "Healthy Watersheds" Initiative and Web Site

EPA has launched a new initiative called "Healthy Watersheds" that emphasizes protection and conservation of aquatic ecosystems. The initiative is being introduced on a new Web site, www.epa.gov/healthywatersheds, which provides information on tools to identify and protect healthy watersheds and their components. The Web site provides critical information for making strategic decisions to both protect and restore our nation's waters. State officials will benefit greatly from the Healthy Watersheds initiative since they generally operate at the scale needed to implement strategic conservation decisions and are well-suited for assessing and managing watershed resources. Local governments, watershed practitioners, and regional agencies will also benefit from this initiative. The Healthy Watersheds Approach addresses the watershed as a system of biota and habitats that are driven by critical processes such as hydrology, fluvial geomorphology, and natural disturbance regimes. Programs that protect and restore aquatic ecosystems are most effective when they recognize and integrate these dynamics and manage watersheds as systems.

While significant progress has been made in protecting and restoring water quality under the Clean Water Act, the nation continues to lose healthy aquatic ecosystems. Preserving healthy watersheds will provide the critical natural infrastructure needed to restore water quality. EPA's new initiative is predicated on the simple truth that it is much more cost-effective to protect the many benefits provided by healthy watersheds than it is to restore them once they become impaired. Learn more at: www.epa.gov/healthywatersheds.

