



# THE CLEAR CHOICE

## STORMWATER CELEBRATES WORLD WATER MONITORING DAY - OCTOBER 20, 2003

### Inside this issue:

Stormwater's Interns's 2003 Field Screening Results	2
Public Information/ Outreach Opportunities	2
Stormwater Staff Continues Education	2
Gary Jackson's 25 Years of Service	3
Chattanooga Public Works Receives Honor	3
Maintenance of Private Stormwater Facilities	3
Beavers Around Town	4



Kimberly McClurkin explaining Stormwater outreach programs to World Water Day attendees.



Tim McDonald explains benthic micro invertebrate studies to Robert Ledford.

The Stormwater staff celebrated World Water Monitoring Day at the Development Resource Center, October 20, 2003. The event was an international effort to draw attention to the issues that affect watersheds throughout the world. Locally, the water quality and water quantity section of stormwater used displays and brochures to further educate City employees and City residents on stormwater's various programs. Attendees were also given free bottles of Dasani water provided by Chattanooga Coca-Cola Bottling Company. Postcards to report water pollution violations, by mail, were also distributed. A consensus of the attendees' responses was they were not aware of the various duties of the Stormwater Section. As attendee, Carol King, pointed out: "I had no idea that Stormwater did all of this." World Water Monitoring Day is an annual event sponsored by America's Clean Water Foundation and the International Water Association. If you are interested in learning more about Stormwater's outreach programs or need "Report Water Pollution" postcards please contact the Stormwater Management Section at 668-2530 or email [www.chattanooga.gov/stormwater](http://www.chattanooga.gov/stormwater).

### 2003 TN Society Of Professional Engineers

### Government Engineer of the Year



**BILL PAYNE**  
*Stormwater Manager*

### Stormwater Plays Vital Role in Chemical Releases Responses

Stormwater Management personnel play a vital role in responding to chemical releases that threaten water quality. Stormwater personnel provide assistance to emergency responders in containing and cleaning up hazardous materials that have been released into the environment. Their immediate goal is to protect water quality and minimize the damage to the storm drainage system. On average, Stormwater responds to sixty releases a year including large fires, vehicle accidents and industrial chemical releases. Stormwater personnel are on call 24-hours a day, 7-days a week and respond to emergencies at the request of the Chattanooga Fire Department. Currently, Stormwater has four individuals that maintain OSHA certification required to respond to chemical releases.

**STORMWATER STAFF'S CONTINUING EDUCATION AND PUBLIC INFORMATION OUTREACH EFFORTS**

**CITY OF CHATTANOOGA WATERSHED MANAGEMENT UNITS**

Chattanooga Creek

South Chickamauga Creek

North Chickamauga Creek

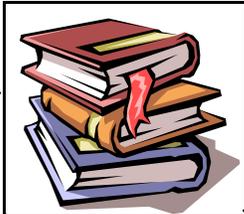
Citico Creek

Lookout Creek

Mountain Creek/Stringers Branch

Marty Hawkins and Michael Yielding received Water Surface Profile training using HEC-HMS and HEC-RAS training in Louisville, KY conducted by FMSM Consulting Engineers.

Kimberly McClurkin and Tim McDonald received Watershed Management Training Certificates from the Watershed Academy sponsored by the United States EPA.



Wayne Boyd and Rebecca Robinson completed an "Adopt-A-Watershed" course held in Parkton, North Carolina.

Jeremy Swilley and Tim McDonald attended the East TN Local Emergency Planning Committee Conference held in Knoxville, TN.

Doug Fritz was a speaker at the SE Water Pollution Biologist Association held in Nashville, TN and at the TN Urban Forestry Conference held in Chattanooga, TN.



Field screening site at Citico Creek



Field screening site at Black Creek

**Stormwater's Summer Intern's 2003 Field Screening Results**

As part of Chattanooga's National Pollutant Discharge Elimination System (NPDES) stormwater permit, the city is required to conduct yearly dry weather field screening at various points where the watershed is greater than fifty-acres and where the drainage system enters streams. The field screening involve visiting each point twice in one day following a 72-hour dry period to determine if there is flow entering the stream from the drainage system. If flow is entering the stream, various field tests are performed on the discharge to determine whether it contains pollutants.

Thanks to the outstanding work of our interns, Crystal Bishop and Zane Brodie, Chattanooga was able to conduct field screening at 208 of the approximately 600 points located throughout the city. This was an outstanding accomplishment given the rainy summer and the requirements for dry weather. Of the 208 points, twenty-four tested positive for the presence of detergents, two tested positive for chlorine and one each positive for copper and phenol. The results from this summer were mapped on the Geographic Information Systems (GIS) for follow-up and future reference.

Field screening will begin again early next summer to rescreen the points that tested positive this year, as well as, screen those that were not sampled this year. In addition, staff will begin field screening on industrial points that drain areas greater than two-acres.

**Calling on all Neighborhood Associations , Churches, Schools, Businesses, Profit / Non-Profit Organizations, and Civic Groups**

Public Involvement and Education is required under Phase I of the (NPDES) Permit. The Stormwater staff has several programs designed to increase the awareness of Chattanooga citizens concerning water quality issues. These programs include: water quality management, storm drain stenciling, landscape maintenance, proper hazardous waste disposal, and yard fertilizer applications. Please contact Education Coordinator, Kimberly McClurkin, at 757-5109 or email her at [mclurkin\\_k@mail.chattanooga.gov](mailto:mclurkin_k@mail.chattanooga.gov) for scheduling.



Students at Girls Preparatory School learning about water quality

## At A Glance—Gary Jackson

Gary Jackson has been employed with the City of Chattanooga since January 30, 1978. Gary worked in the Engineering Department from 1978-1991 and has been in Stormwater Management since 1991. Since 1999, he has been Stormwater Management's construction program supervisor. Gary is responsible for coordinating stormwater management drainage projects with Citywide Services, managing contracts for design of drainage projects, and managing stormwater construction projects. He also works with Citywide Services crews, local contractors, and utilities to eliminate or correct conflicts with projects.

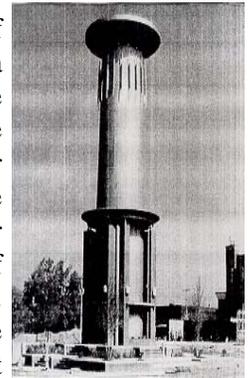
Gary enjoys riding motorcycles, jogging and antiquing. He is married to Kathy Jackson and they have two sons: Jacob and Joshua.



## Chattanooga Public Works Department Recipient of the 2002 Steel Tank of the Year (Special Storage Systems)

The City of Chattanooga Public Works Department was recently awarded the 2002 Steel Tank of the Year (Special Storage Systems) by the Steel Plate Fabricators Association, Inc. Chattanooga was recognized for its installation of a 16-foot-diameter by 75-foot-tall stainless steel tank. The total storage capacity is 865,000 gallons (105,000 aboveground and 760,000 underground). The filtered stormwater is used for streetscape drip irrigation, flushing and cleaning of stormwater catch basins in addition to watering trees and shrubs. The project demonstrates that there can be a practical alternative to costly and difficult to monitor on-site techniques of urban stormwater retention and recycling a natural resource. The design was a collaborative effort between City of Chattanooga Public Works Engineers, Chattanooga City Planners, and CTI Engineers. Contractors included East Tennessee Grading Inc., Chattanooga Boiler and Tank, Wise Construction Company, LLC, Sherman Dixie and J. & J. Contractors, Inc. This project was a part of the 17th Street streetscape.

*(TN Public Works July/Aug. 2003 Volume 21-Number 2)*



Water Tower at 17th & Market

## Maintenance Of Private Stormwater Facilities Property Owners Responsibility

Stormwater Management recently sent out over 1,000 letters notifying owners of commercial property that they are responsible for the maintenance and upkeep of stormwater facilities such as oil skimmers and detention ponds located on their property. These structures were built during original construction in order to meet regulations that were passed to protect downstream property owners from upstream development. Proper maintenance is essential to protecting downstream properties and to minimize breeding sites for mosquitoes in poorly maintained facilities. To assist property owners in maintaining their facilities, Stormwater Management contracted with QORE Property Sciences, Inc. to develop a basic guidance manual on how to maintain common types of stormwater facilities. This manual can be found at Stormwater's web page, [www.chattanooga.gov/stormwater](http://www.chattanooga.gov/stormwater).

Stormwater Management intern, Michael Edge, also conducted preliminary inspections on 125-detention facilities located in existing subdivisions. Information collected during these inspections will be used in helping make sure that the detention ponds are working properly. Currently, it is the responsibility of individual property owners within a subdivision or its homeowner's association to maintain their ponds.

For more information regarding detention ponds and their maintenance, please contact Stormwater Management by calling 311 or by e-mail at [SWM@mail.chattanooga.gov](mailto:SWM@mail.chattanooga.gov).

**Check Us Out**  
[www.chattanooga.gov/stormwater](http://www.chattanooga.gov/stormwater)

Email: [www.chattanooga.gov/stormwater](mailto:www.chattanooga.gov/stormwater)

Fax: 423-757-0041

Phone: 423-668-2530

1 250 Market Street, Suite 2100  
Development Resource Center

**STORMWATER MANAGEMENT**



**Beaver repairing a dam**

Copyright 2003 @ Junglewalk.com

## **Are You Busy As A Beaver?** **Beavers make their presence known in Chattanooga**

Have beavers moved into your part of town? The often unwanted neighbors tend not to take their neighbors into consideration when they build their homes.

Beavers are found throughout North America. A beaver calls home almost anywhere there is a year-round source of water such as streams, lakes, farm ponds, swamps and wetland areas. They quickly begin building dams to modify the environment more to suit them. Trees that the beaver prefers include willow, blackgum, pine, cottonwood and aspen. If their favorite trees aren't in the area, they will eat bark, leaves and twigs from almost any variety of trees and aquatic plants. Beavers will travel 100 yards or more from the pond or stream to get to corn fields, soybean fields and other growing crops where they will cut the plant off at the ground and drag the entire plant back to the water. Adding more insult to injury, they not only eat part of the plant, they will often use the remainder as construction material in the dam. Beavers are busy up to 12 hours each night with the exception of cold winter nights. Could this be where the term "busy as a beaver" comes from? Beavers can build dams on fast-moving streams as well as slow-moving ones. All beaver dams have at least two entrances. Some may have up to four. Unfortunately, beavers have moved into local neighborhoods and have caused streams to back up on to people's property. When this is the case, there is no real solution but to remove the beavers. Look in the yellow pages under Animal Removal Services to hire someone to assist you or call The Tennessee Wildlife Resources Agency @ 1-800-262-6704 for tips on how to remove the beavers yourself.