

City of Chattanooga Water Quality Program



- To report illicit discharges (water pollution) call (423) 643-6311
- Visit our website www.chattanooga.gov/w aterquality

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# Welcome to the Tennessee River Watershed

### What is a Watershed?

A watershed is an area of land that water flows across on its way to a particular body of water such as a pond, stream, river or ocean. In Chattanooga, all the watersheds drain to the Tennessee River.

### Watersheds:

- Collect and move rain water from a higher elevation to a lower one.
- Can potentially transport pollutants such as oil, grease, trash and dirt by way of stormwater runoff to the receiving water body.

We all live in a watershed. The City of Chattanooga consists of 9 unique watersheds: Chattanooga Creek, Citico Creek, Combined Sewer Area, Lookout Creek, Mountain Creek, North Chickamauga Creek, South Chickamauga Creek, Tennessee River, and Wolftever Creek.

# A Watershed Rainfall Overland Flow Filtration Groundwater

### Where am I?

The Tennessee River Watershed is part of the larger Tennessee River basin. The larger Tennessee River basin drains a portion of 7 different states; Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia. The upper portion of the larger Tennessee Watershed marks the boundary of the glaciers during the last ice age. The larger Tennessee

River basin is home to the most diverse fresh water

habitat in the world!



## Tennessee River Watershed Facts:

- The Tennessee River meanders approximately 15 miles through the City of Chattanooga.
- The watershed drains almost 23,696 acres in Chattanooga.
- With a 1 inch rain, approximately 643,447,954 gallons of water discharge into the Tennessee River equaling 1,286,959 baths.

Wow– that's a lot of water!



### Water Quality Issues in the Tennessee River Watershed

- Habitat Loss
- Pathogens
- Urban influences (i.e. trash, pet waste, grass clipping, motor oil, and gasoline)



What is the City doing to manage the water quality issues in the Tennessee River Watershed?

### Creek Restoration —

Renaissance Park serves as an innovative project to improve water quality. It consists of a 1.5 acre constructed wetland which acts as a biofilter, removing sediment and other pollutants from the water from the 475 acre densely urbanized area of North Chattanooga.

### Monitoring —

- A continuous field screening program is being used to detect illicit discharges and improper disposals into the stormwater system. Field screening involves testing chemical characteristics such as temperature, pH, conductivity, dissolved oxygen, phosphates, chlorine, detergents, phenol, copper, ammonia, and hydrogen sulfide. There are 139 field screening sites within the Tennessee River Watershed.
- The City also designed the Stream Corridor Evaluation (SCORE) program to provide a comprehensive and
  consistent approach to identify and evaluate stream channel stability, sediment loading, and in-stream habitat. In
  doing so, the Water Quality staff surveys all of the waterways within the City including the 15 miles of stream in the
  Tennessee River Watershed.

### Pathogen Reduction —

The Water Quality Program has partnered with Moccasin Bend Waste Water Treatment Authority and implemented a Sanitary Lateral Assessment Program (SLAP) to identify breaks in the sanitary sewer lines in an effort to eliminate potential sources of pathogens from contaminating our waterways. A sewer lateral is the pipe that carries the wastewater from the house to the sanitary sewer main line in the street. The sewer laterals are inspected by putting smoke in a public sewer main and observing if the smoke is escaping from the ground; indicating a comprised sewer



### What can I do to improve water quality in the Tennessee River Watershed?

- Maintain vehicles to reduce the discharge of oil and other motor fluids to the watershed.
- Wash cars in grassy areas to prevent runoff of washing chemicals into the storm drains.
- Do not discard your used motor oil, leaves, paint, or anything else into storm drains.
- To avoid blockages in your sanitary service line, pour grease and/or cooking oil in closed containers to be disposed of in your trash cans instead of in the sink.
- Pick-up after your pet to reduce pathogens in the watershed.
- Dispose of your grass clippings/wood debris through compositing or the brush pick-up service offered by the City.
- Use mulch to control weeds instead of pesticides.

### **Additional Resources:**

TN Department of Environment & Conservation (TDEC): <a href="www.state.tn.us/environment/wpc/">www.state.tn.us/environment/wpc/</a>
Environmental Protection Agency (EPA): <a href="www.epa.gov/owow/watershed/">www.epa.gov/owow/watershed/</a>
Center for Watershed Protection: <a href="http://www.cwp.org/">http://www.cwp.org/</a>

