SOURCE WATER ASSESSMENT PROJECT:

An Assessment of Potential for Pollution of Surface Drinking Water Supply Sources

Prepared by the Atlanta Regional Commission for

Cherokee County Water & Sewer Authority

and

City of Canton Water & Sewer Department
Why Are We Here?

- Provide information on the Source Water Assessment for review
- Obtain comments and recommendations on the Assessment
Water Quality

- City of Canton and Cherokee County’s Treated Drinking Water is good and meets and surpasses all water quality standards

- This project is about assessing the source of the water prior to treatment and potential for future contamination
Source Water

- Source water can be from streams, rivers, lakes, or aquifers

- In the Atlanta Region
  Surface water serves approximately 2.7 million people

- ARC Focus on Surface Water
1996 Amendments to Safe Drinking Water Act

EPA Advocates: source water protection plans in place nationally by 2005;

Each State Required to Develop and Implement a Source Water Assessment Plan

EPD Delegation to Individual Water Systems and Regional Partnerships

ARC Facilitates the Metro Atlanta Region SWAP
Source Water Assessment Task Force

- ARC
- GA EPD
- LAPA
- Water Suppliers for
  - Atl/Ful County WRC
  - CCMWA
  - Cherokee County WSA
  - City of Atlanta
  - City of Canton
  - City of East Point
  - City of McDonough
  - City of Palmetto
  - City of Roswell
  - Clayton County WSA
  - Douglas Co. WSA
  - DeKalb County
  - Fayette County
  - City of Fayetteville
  - Henry County WSA
  - Rockdale County
Purpose of the Source Water Assessment Project

- Develop an inventory of POTENTIAL Sources of Contamination
- Determine the susceptibility of the drinking water to identified Potential Pollution Sources
- Increase public involvement in and awareness of drinking water watershed concerns
Source Water Assessment Process

- Delineate Source Water Assessment Areas for Water Supply Watersheds
- Inventory Potential Pollutant Sources
- Determine Source Water Susceptibility to the Potential Pollutant Sources
- Public Communication
What is a watershed?

A watershed is the area of land that drains into a river, stream or lake.
City of Canton

Etowah River Intake
POTENTIAL INDIVIDUAL SOURCES OF POLLUTION
Potential Individual Source Pollutant Categories

- Accident Spill Locations
- Agriculture
- Airports
- Asphalt Plants
- Construction
- Garbage Transfer Stations
- Fueling Facilities
- Hazardous Waste Facilities
- Junk/Scrap/Salvage Yards
- Landfills (open & closed)
- Industries which have Bulk Chemical & Petroleum Storage
- Industries which have Federal Categorical Standards
- Large Industries which Utilize Hazardous Chemicals
- LAS Permit Holders
- Lift Stations
- Marinas
- Military Bases
- Mining
- NPDES Permit Holders
- Oil/Gas Pipelines
- Electric Substations
- Railways, Roads, & Sewer lines adjacent to/crossing streams
- Recycling Centers
- Water & Wastewater Plants
Inventory of Potential Individual Pollutant Sources

- Determine the Contaminants of Concern (COCs)
- Link COCs to Potential Pollutant Source Categories
- Map & Document All Potential Pollutant Sources in Each Water Supply Watershed
- Field Verify Mapped Data
Inventory of Potential Individual Pollutant Sources - Cherokee Intake

- 85 Agriculture/Poultry Farms
- 2 Airports
- 1 Asphalt Plants
- 5 Electric Substations
- 17 Fuel Facilities
- 2 Hazardous Waste Facility
- 3 Junk/Scrap/Salvage Yards
- 4 Landfill
- 4 Large Industries Which Utilize Hazardous Chemicals
- 7 Land Application Sites
- 61 Mines
- 9 NPDES Permit Holders
- 9 Water Treatment Plant
- 1 Wastewater Treatment Facility
Inventory of Potential Individual Pollutant Sources - Canton Intake

- 126 Agriculture/Poultry Farms
- 5 Airports
- 2 Asphalt Plants
- 11 Electric Substations
- 61 Fuel Facilities
- 24 Hazardous Waste Facility
- 7 Junk/Scrap/Salvage Yards
- 6 Landfill
- 3 Large Industries Which Have Federal Categorical Standards
- 23 Large Industries Which Utilize Hazardous Chemicals
- 7 Land Application Sites
- 81 Mines
- 12 NPDES Permit Holders
- 1 Recycling Centers
- 12 Water Treatment Plant
- 1 Wastewater Treatment Facility
Susceptibility of Surface Water Intakes to Potential Pollutant Sources

Potential of Contaminant Release
1. Distance from Water
2. Volume of Release
3. Duration of Release
4. Ease of Transport/Travel

Potential Contaminant Risk
1. Distance from Intake
2. Toxicity
# Individual Source Component of Susceptibility Ranking

<table>
<thead>
<tr>
<th>Watershed</th>
<th>Facilities</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherokee County WSA</td>
<td>210</td>
<td>Medium</td>
</tr>
<tr>
<td>Canton Water Dept.</td>
<td>382</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Non-Point Source Pollution is caused by everyday activities that take place in residential, commercial, and rural areas and is carried by stormwater runoff to streams and lakes.
Non-Point Source Pollutants

- Sediment
- Bacteria
- Heavy Metals
- Oil and Grease
- Herbicides and Pesticides
- Nutrients
- Temperature Increase
Impervious surfaces are mainly constructed surfaces - rooftops, sidewalks, roads, and parking lots - covered by impenetrable materials such as asphalt, concrete, brick, and stone. These materials seal surfaces, repel water and prevent precipitation from infiltrating soils.
Other Non-Point Source Considerations

- Area of Watershed in Transition
- Size and Proximity of Sewer Lines
- Major Transportation Corridors (limited access highways)
- Railroads
## Non-Point Source Component of Susceptibility Ranking

<table>
<thead>
<tr>
<th>Watershed</th>
<th>% Impervious</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherokee County WSA</td>
<td>2.7%</td>
<td>Low</td>
</tr>
<tr>
<td>Canton Water Dept.</td>
<td>3.7%</td>
<td>Low</td>
</tr>
</tbody>
</table>
### OVERALL WATERSHED RANKINGS/PRIORITY

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What Does This Mean??

- Help communities understand POTENTIAL threats to their water supplies
- Identify priority needs for protecting drinking water
- Provides a Resource