

Source Water Assessment Project

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

City of Roswell Department of Public Works

**Drinking Water Supplied from the
Big Creek Watershed**

What is a Source Water Assessment?

A source water assessment is a study and report, unique to each water system that provides basic information about the source used to provide drinking water.



Who is involved in these Assessments?

The 1996 Amendments to the Federal Safe Drinking Water Act brought about new pollution prevention and protection measures that help ensure clean and safe drinking water. As a result, the U.S. Environmental Protection Agency (USEPA) has set a national goal that by 2005, the majority of the population is to receive its drinking water from systems with Source Water Protection Plans in place. As a first step, the USEPA requires all states to perform Source Water Assessments for each drinking water intake. The Georgia Environmental Protection Division (GAEPD) contracted with the Atlanta Regional Commission (ARC) to coordinate and facilitate the implementation of the State's Source Water Assessment Plan for 28 metro Atlanta public drinking water intakes.

What will the Assessments tell us?

The Source Water Assessments:

- ◆ identify the area of land that contributes the raw water used for drinking water,
- ◆ identify potential sources of contamination to drinking water supplies, and
- ◆ provide an understanding of the drinking water supply's susceptibility to contamination.

What is Water Pollution?

Water pollution is caused when substances such as chemicals, pathogens, sediment, and metals are released into the water. There are two types of water pollution, individual source and non-point source pollution.

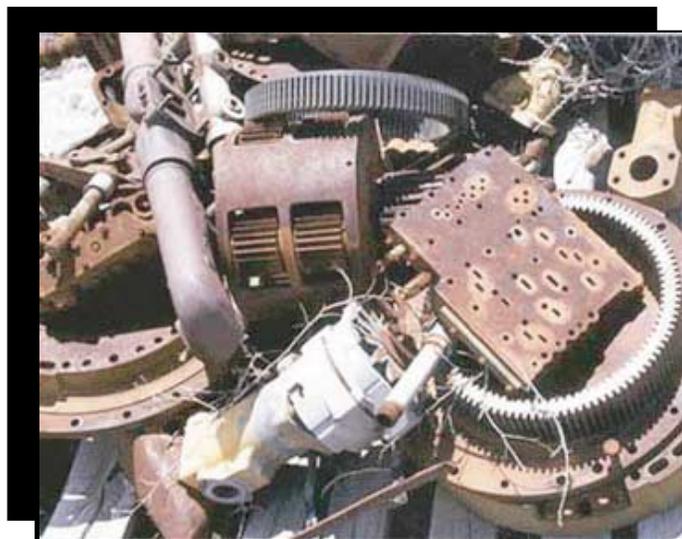
The City of Roswell Department of Public Works and the Atlanta Regional Commission have completed a source water assessment itemizing potential sources of surface water pollution to your drinking water supply. The results are summarized on the back side of this report.



Individual Source Pollution

Individual Source Pollution involves actual facilities, which have contaminants on site, which can pose a potential health risk if humans consume those contaminants.

Big Creek Water Supply Watershed	
Inventory of Potential Point Sources of Pollution	
Potential Pollutant Source Facilities	Number of Facilities
Agriculture	17
Airports	1
Asphalt Plants	1
Electric Substations	6
Fuel Facilities	92
Garbage Transfer Stations	3
Hazardous Waste Facilities	104
Junk/Scrap/Salvage Yards	6
Landfills	2
Large Industries which Utilize Hazardous Chemicals	25
Land Application Site (LAS) Permit Holders	1
Lift Stations	1
Mines	2
NPDES Permit Holders	3
Recycling Centers	4
Wastewater Treatment Facilities	1
Water Treatment Plants	1
Total	270



Non-Point Source Pollution

Non-point source pollution is caused by development and everyday activities that take place in residential, commercial and rural areas and is carried by rainfall to streams and lakes.

Each time it rains, the resulting runoff from rooftops, lawns, streets and parking lots pick up debris such as:

- ◆ Dust and Dirt
- ◆ Oil and other vehicle leaks
- ◆ Pet waste
- ◆ Lawn pesticides and fertilizers
- ◆ Leaves and grass clippings
- ◆ Paint and other household products

Leaky septic tanks and sewer lines, construction sites and bare ground areas are other sources of non-point source pollution.

These pollutants are deposited, untreated, into our streams, rivers, and lakes. Increased runoff from developed areas can also cause flooding and erosion of stream banks, which creates even more sediment that enters our waterways.

The amount of impervious cover from buildings, streets and parking lots is an indicator of potential pollutant loads from non-point source pollutants. The metro source water assessments watersheds with greater than 20 percent impervious surface ranked high for potential non-point pollution, between 10-20 percent ranked medium and less than 10 percent ranked low.

Big Creek Watershed
Non-point Source Considerations
18.7% Impervious Surface Area
4.4% Area of Watershed in Transition
233 Sewer Lines Crossing the streams near the intake
0 Railroads Crossing Streams near the intake
34 Identifiable Accidental Spill Sites

How were the watersheds ranked?

Individual source pollution and non-point source pollution considerations were combined to determine an overall susceptibility ranking for each watershed.

What does this mean?

This information can help communities understand the potential for contamination of their drinking water supplies and can be used to prioritize the need for protecting drinking water sources. For questions on this project contact Matthew Harper at mharper@atlantaregional.com

Watershed Susceptibility Ranking	
Drinking Water Supply Watershed	Overall Watershed Ranking
Big Creek	Medium-High

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