

# Your Water System

Since 1961, the HCWSA has worked diligently to provide clean, safe drinking water to meet the demands of one of the fastest growing communities in the nation.

Our system is supplied by five raw water reservoirs, with a total storage capacity of more than 18 billion gallons. The HCWSA has nearly 1,300 miles of transmission and distribution water mains, 15 storage tanks with 30.2 million gallons of finished drinking water storage capacity, and two water treatment plants with a combined production capacity of 37 million gallons per day (MGD).

The HCWSA has emergency tie-ins to the water systems in DeKalb, Clayton, and Newton Counties, which can furnish up to an additional 5 MGD if needed.

There have been no violations of water treatment rules by the HCWSA in 2007, as reflected in this Water Quality Report, distributed prior to July 1, 2008, to Authority water customers as required for regulatory compliance.

## Capital Improvements at HCWSA

- The Tussahaw Water Treatment Plant, which produced its first gallons last year, averages approximately 9 million gallons per day (MGD), with a capacity of 13 MGD.
- The design for Phase II expansion of the Tussahaw Plant is complete, which includes adding a Solids Handling Facility and doubling capacity to 26 MGD.
- The Authority is underway with Phase II of the Tussahaw Transmission Main project.
- The older Towaliga Water Treatment Plant, with a 24 MGD capacity, was upgraded when 7 basins and flocculators were renovated.
- Also during 2007, the HCWSA completed construction on approximately 50 miles of water distribution line extensions.
- The HCWSA is monitoring both chemical and biological constituents and parameters, as part of the Watershed Assessment and Stormwater, Phase II project.
- The Authority has also constructed additional public boat ramps at the Tussahaw and Upper Towaliga Reservoirs.
- On May 13, 2008, the HCWSA Tussahaw Reservoir reached full pool for the first time since construction was completed in August of 2005.



# A Banner Year for an Award-Winning System

This past year was one highlighted by system, facility, and individual industry awards. The Georgia Association of Water Professionals (GAWP) and others were busy handing out hardware to the HCWSA during 2007, including:

- The GAWP “Public Education Award” for the most outstanding public outreach program in the state of Georgia.
- The GAWP “Gold Awards” for 100% permit compliance for both the Towaliga and Tus-sahaw Water Treatment Plants, meaning neither facility had a permit violation in 2007.
- The GAWP “Lifetime Achievement Award” for Stephen Epps for 30 years of service in the industry association.
- The GAWP “Golden Wrench Award” for Joe Wisniski, rated the best mechanic in his craft in the state of Georgia.
- The GAWP “Top Op” Award in District 3 for the Authority’s Andy Young, as the best water plant operator in this region of the state of Georgia.
- The “Honor Award” from the Georgia Engineering Alliance for the Tussahaw plant.

## About This Report

Water quality is the highest priority of the Henry County Water & Sewerage Authority (HCWSA). Our team of professionals work diligently to safeguard the water supplied to our more than 52,000 customer accounts, to ensure that it meets or exceeds all federal (EPA) and state (EPD) drinking water standards.

As a result of the Authority’s continued commitment to deliver the highest quality water possible, we’re pleased to report we had no water quality violations during 2007.

In 1996, the U.S. Congress amended the Safe Drinking Water Act to require water providers to deliver an annual water quality report, such as this one, to their customers. This is our 10th annual report, which includes data collected for the period of January 1, 2007 – December 31, 2007.

In this report, we will review information about your water sources, the substances and contaminants we test for, the water treatment processes we oversee, and the avenues available for your participation to protect water quality and ensure that clean, safe drinking water is provided by the HCWSA.



# Making Your Water Safe To Drink

The HCWSA Towaliga and new Tussahaw Water Treatment Plants are operational 24 hours a day, 7 days a week, and 365 days a year, by trained and state-certified plant operators, who make sure your drinking water meets or exceeds all federal and state requirements for water quality. The latest technology in monitoring equipment is used to provide customers assurance that their water has been treated to the highest standards in the industry.

Maintaining the HCWSA drinking water distribution system involves routine sampling, flushing of water lines, and ongoing maintenance of water storage tanks. Our staff takes a minimum of 120 samples per month from throughout the distribution system, which then are tested in our state-certified bacteriological laboratory.

The following tables include data from water produced at both of our HCWSA facilities. No bacteria were detected in any of the HCWSA distribution system samples that provide the data represented in this year's Water Quality Report.

Test Results		Regulated Substances Reported January 1 - December 31, 2007				
		Regulated substances not listed below were <u>not</u> found.				
NON-DISINFECTION SUBSTANCES						
SUBSTANCES DETECTED	UNITS	GOAL MCLG	MAXIMUM ALLOWED MCL	AMOUNT DETECTED	RANGE DETECTED	WITHIN STANDARDS
Copper	ppb	1300 (AL)	1300 (AL)	46	0 Samples Above AL	Yes
Fluoride	ppm	4	4	0.91	.73 - 1.09	Yes
Lead	ppb	0	15 (AL)	3.5	1 Sample Above AL	Yes
Nitrate/Nitrite	ppm	N/A	10	< .20	N/A	Yes
Sodium	PPM	N/A	500	4.2	N/A	Yes
Turbidity	NTU	N/A	TT	0.76	% of Samples < 0.3 ntu 99.9%	Yes
Zinc	ppb	N/A	5000	64	N/A	Yes
Total Organic Carbon	Ratio	TT ≥ 1	TT ≥ 1	1.26	1.00 - 1.54	Yes
DISINFECTION SUBSTANCES						
SUBSTANCES DETECTED	UNITS	GOAL MCLG	MAXIMUM ALLOWED MCL	AMOUNT DETECTED	RANGE DETECTED	WITHIN STANDARDS
Chlorine	PPM	4	4	1.53	1.00 - 1.90	Yes
HAA5	ppb	0	60	30.5	20 - 49	Yes
TTHM's	ppb	0	80	58.25	41 - 82	Yes
Coliform	p/a	0	≤ 5%/mo	< 1%	0 - 1%	Yes

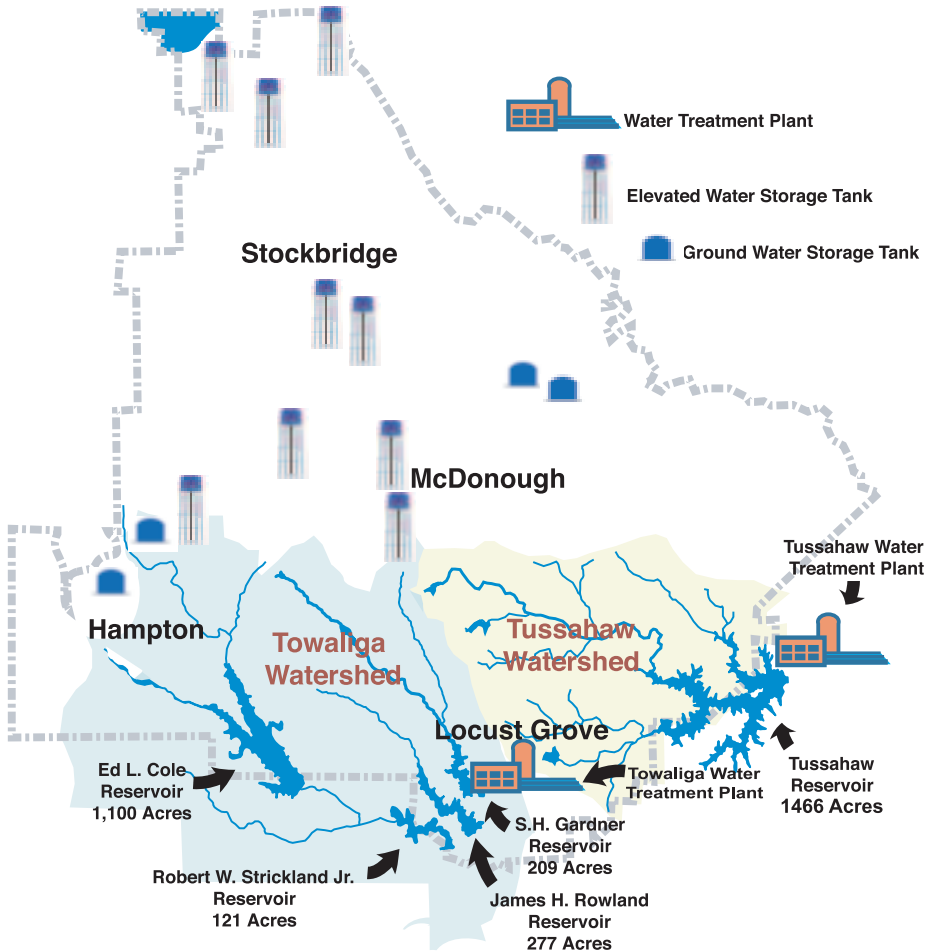
### Additional information regarding Lead in Drinking Water:

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. The Henry County Water & Sewerage Authority (HCWSA) is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested by an independent, private lab. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure, is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>."

# How To Read This Report:

AL	Action Level – the concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.
MCL	Maximum Contaminant Level – the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible, using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal – the level of contaminant in drinking water, below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
MRDL	Maximum Residual Disinfectant Level – the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbiological contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal – the level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
N/A	Not Applicable.
NTU	Nephelometric Turbidity Unit – a measure of the clarity of water, which we monitor because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.
ppm	Parts Per Million – means 1 part per 1,000,000 (same as milligram per liter, or mg/L). This is the equivalent of 1 minute in 2 years or 1 penny in \$10 thousand dollars.
ppb	Parts Per Billion – means 1 part per 1,000,000,000 (same as microgram per liter or ug/L). This is the equivalent of 1 minute in 2,000 years or 1 penny in \$10 million dollars.
TT	Treatment Technique – a required treatment process intended to reduce the level of a contaminant in drinking water.
(a)	Water from the treatment plant does not contain lead or copper; however, under EPA test protocol, water is tested at the tap. Tap tests show that where a customer may have lead soldered copper pipes, the water is not corrosive. Phosphate, a corrosion inhibitor, is added prior to distribution.
(b)	Fluoride is added in treatment to bring the natural level to the EPA optimum of 1 part per million.
(c)	This level is based on a system-wide four quarter running average of several samples, as required by EPD testing protocol.
(d)	Turbidity has no health effects. However, turbidity can interfere with disinfection and can indicate the presence of microbial growth.
<	Less than.
>	Greater than.

# Water Sources



Source water used for drinking water production at the HCWSA is untreated raw water garnered from streams, rivers, or lakes. The above map highlights the watersheds (shaded areas) that contain the five HCWSA source water reservoirs.

A watershed is an area of land that drains into a river, stream, or lake. The HCWSA is a surface water system, which utilizes raw water from surface water runoff for drinking water production to serve approximately 180,000 citizens via 52,000 water customer connections.

## Source Water Assessment

The HCWSA and the Atlanta Regional Commission have completed a source water assessment that has itemized potential sources of surface water pollution within the watershed areas of the water supply of the HCWSA. The results of the assessment reveal a susceptibility ranking of “low to medium” when combining all individual and non-point source rankings. The assessment is available at [www.atlantaregional.com/swap/](http://www.atlantaregional.com/swap/), or by writing to the HCWSA at 1695 Highway 20 West; McDonough, GA; 30253.

# Important Information About The Safety of Your Drinking Water

As scientists learn more about our environment and the effects of substances present therein, new standards are being set for drinking water production. The sources of drinking water — whether consumed as tap water or bottled water — include rivers, lakes, streams, reservoirs, springs, and wells. In a surface water system such as the HCWSA, as water travels over the surface of the land, it dissolves naturally - occurring minerals and materials, in addition to picking up substances that are present as a result of animal or human activity.

## Substances that may be present in source water, before water treatment, include:

- **Biological Substances** - which may come from humans, septic/sewer systems, agricultural livestock, or wildlife sources.
- **Inorganic Substances** - which may be naturally occurring, or result from storm water runoff, farming, as well as industrial or domestic (wastewater) discharges.
- **Pesticides and Herbicides** - which may come from agriculture, urban storm water runoff, or landscape.
- **Organic Substances** - which may come from industrial or domestic processes, storm water runoff, and/or septic (tank) systems.
- **Radioactive Substances** - which can be naturally occurring or result from mining activity or oil and gas production.
- **Cryptosporidium** - requiring the HCWSA to conduct analyses monthly since January of 2006. Cryptosporidium has not been detected in these samples. Cryptosporidium is a single-celled parasite, highly resistant to chlorine, which produces an illness characterized by vomiting, fever, diarrhea, and fatigue, when ingested. Treatment processes have been optimized to ensure that if there are Cryptosporidium cysts in the source water, the HCWSA will remove them during the treatment process.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain substances (categorized above) in water provided by public water systems such as the HCWSA.

## Notice to Persons with Compromised Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population, particularly persons with compromised immune systems.

Immuno-Compromised People — such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some older adults, and infants — may be particularly at risk. These persons should seek advice on drinking water from health care providers.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of

contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPD's Safe Drinking Water Hotline at 1-800-426-4791. Additional online sources include: [www.epa.gov/safewater](http://www.epa.gov/safewater); [www.amwa.net](http://www.amwa.net); [www.gaepd.org](http://www.gaepd.org); [www.awwa.org](http://www.awwa.org).





# Opportunities for Public Involvement

The HCWSA Board of Directors meets at 9:00 a.m. on the second and fourth Tuesdays of every month in the board room of the Authority's headquarters at 1695 Highway 20 West in McDonough. For more information about HCWSA facilities, operations, public education initiatives, and opportunities for public involvement, contact us at 770-957-6659, or log onto our Web site at [www.hcwsa.com](http://www.hcwsa.com).



For questions concerning this report, contact  
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## HCWSA Water Production Division

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## HCWSA Administrative Leadership

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Al J. Smith, Jr., Vice Chairman  
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Kirk Emerson, Board Member  
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