

## 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, water travels over the surface of the land and 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** - a parasite that is resistant to chlorine and can survive in water, and can cause severe diarrhea in humans, if infected.

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. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water hotline (1-800-426-4791) or <http://water.epa.gov/drink/hotline/index.cfm>.*

### Bottled Water

To ensure that tap water is safe to drink, the EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. However, FDA regulations establish the limits for contaminants in bottled water. 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. Additional online sources are available at: [www.epa.gov/safe-water](http://www.epa.gov/safe-water); [www.amwa.net](http://www.amwa.net); [www.gaepd.org](http://www.gaepd.org); and [www.awwa.org](http://www.awwa.org).

## HCWSA Recent Capital Improvements

Several capital improvements at Henry County Water were either completed or progressed significantly this past year.

- The Phase III extension of the Tussahaw Transmission Main Project is nearing completion.
- The Walnut Creek Water Reclamation Facility is in the process of a Phase II expansion from 4 MGD wastewater treatment capacity to 8 MGD.
- The Walnut Creek Phase II expansion of the Land Application System (LAS) is in the process of doubling its spray irrigation fields from 7 to 14 total.
- Finally, the Walnut Creek Phase II expansion also includes the addition of a second Holding Pond.

## Another Year of Awards for the HCWSA System

This past year included several system, facility and individual awards the HCWSA received from the Georgia Association of Water Professionals (GAWP) and others.

- The HCWSA, in partnership with Henry County Government, was selected as a WaterFirst Community in Georgia, as awarded by the state Department of Community Affairs.
- Senate and House Resolutions from the Georgia General Assembly commemorated the HCWSA for its 50th Anniversary in 2011.
- The Authority won the GAWP Water Plant of the Year Award for the Tussahaw Water Treatment Facility.
- The Authority also won the GAWP Wastewater Plant of the Year Award, for a second time, for the Indian Creek Water Reclamation Facility.
- The Authority received GAWP Gold Awards, for 100 percent permit compliance for the year, for both water production plants and all four wastewater treatment facilities.
- The GAWP inducted Tony Carnell and Jim Brinkman into its Golden Manhole Society.



## Opportunities for Public Involvement

The HCWSA Board of Directors meets at 9:00 a.m. on the first Monday of every month in the boardroom of the Authority's headquarters at 1695 Highway 20 West in McDonough.

For more information about HCWSA facilities, operations, public initiatives, and opportunities for public education and 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:

David Whitson, Division Manager  
Pat Hembree, Assistant Division Manager

Tussahaw Water Treatment Plant  
199 Preservation Drive  
Jackson, GA 30233  
770-957-1380 (phone)  
770-914-3363 (fax)

[pat.hembree@hcwsa.com](mailto:pat.hembree@hcwsa.com) (email)

### HCWSA Administrative Leadership

Jimmy Carter, Chairman of the Board  
Jim Lenahan, Vice Chairman  
Robert Abercrombie, Secretary/Treasurer  
Al J. Smith, Jr., Board Member  
Rick Jeffares, Board Member  
Lindy D. Farmer, Jr., General Manager  
Kimberly Turner Osborne, Clerk

[www.hcwsa.com](http://www.hcwsa.com)



PRESORT STD  
US POSTAGE  
PAID  
MCDONOUGH, GA  
PERMIT NO. 44

# Henry County Water Quality Report

# 2011



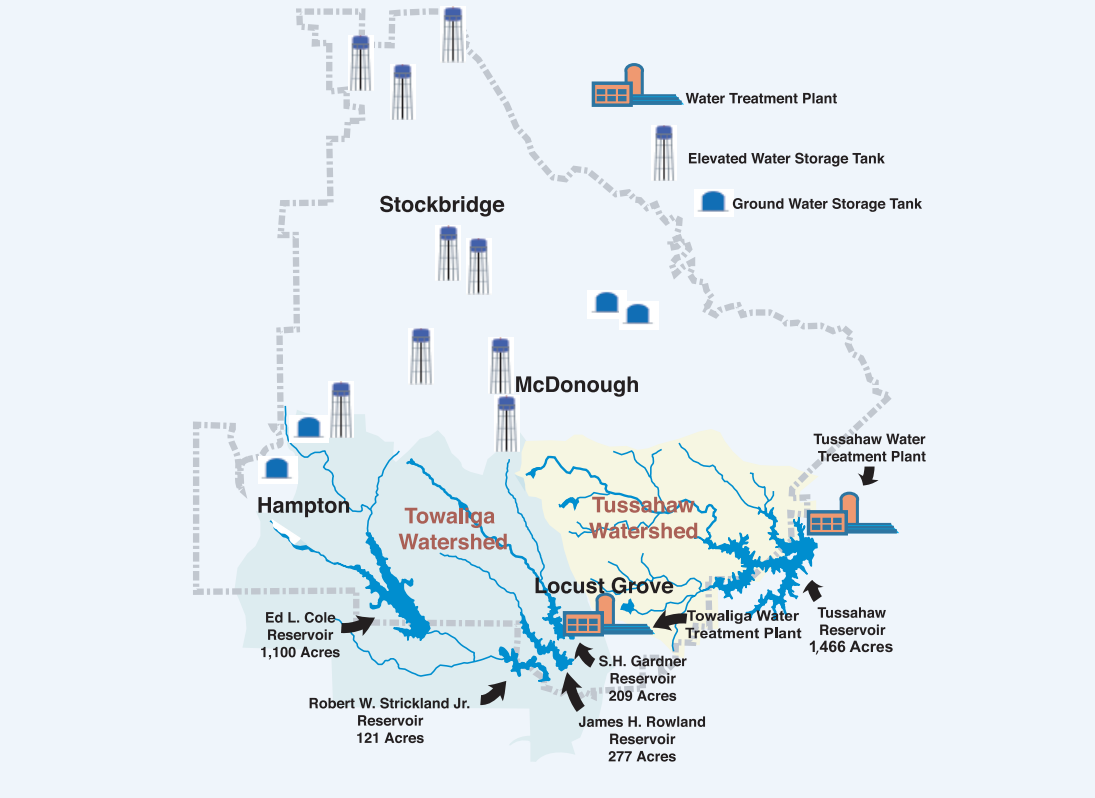


# About This Report

Water quality is the highest priority of the Henry County Water & Sewerage Authority (HCWSA). Our team of professionals works diligently to safeguard the water supplied to our customers, as well as 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 over the course of 50 years to deliver the highest quality water possible, we're pleased to report we had no water quality violations during 2010. In this report, we will review information about your water system and 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 the HCWSA provides clean, safe drinking water.

# The HCWSA Water System



# An Overview Of Henry County Water

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, which celebrates its 50th Anniversary this year, is supplied by five raw water reservoirs with a total storage capacity of more than 18 billion gallons, which equates to a 490-day supply, even without additional rainfall. The HCWSA has approximately 1,404 miles of transmission and distribution water mains, 15 storage tanks, with 29.7 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).

# Water Sources

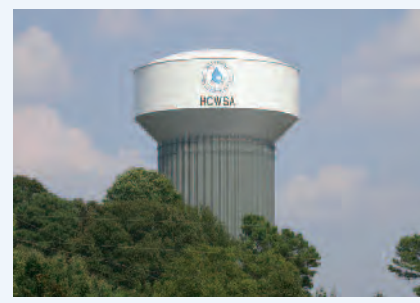
Source water used for drinking water production at the HCWSA is untreated raw water collected from streams, rivers, or lakes. The map to the left highlights the watersheds (shaded areas) that contain the five HCWSA source water reservoirs.

A watershed is an area of land that drains into a river, stream, or lake. The HCWSA is a surface water system, utilizing raw water from surface water runoff for drinking water production. In 2010, the HCWSA had approximately 54,211 water tap connections, representing 157,754 consumers, in a county of 203,922 citizens.

# 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.



# Making Your Water Safe To Drink

The HCWSA Towaliga and 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. 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 HCWSA's drinking water distribution system involves routine sampling, flushing of water lines, and ongoing maintenance of water storage tanks. In 2010, the HCWSA performed more than 200,000 tests on your drinking water. These tests measure drinking water quality and safety. Our staff is required to collect and analyze a minimum of 120 samples per month from throughout the distribution system, which then are tested in our State-Certified Bacteriological Laboratory. The following table lists regulated substances that may be found in drinking water and represents data from both of our Water Treatment Plants. All substances listed are well within regulated limits. In addition, we tested for hundreds of additional substances, which were not found in our water.

| Test Results   |                  | Regulated Substances Reported January 1 - December 31, 2010. |                       |                 |                                |                                     | Regulated substances not listed below were <u>not</u> found. |  |
|--|------------------|--|-----------------------|-----------------|--------------------------------|-------------------------------------|--|--|
| SUBSTANCES TESTED AND DETECTED   | UNITS OF MEASURE | GOAL (MCLG)  | MAXIMUM ALLOWED (MCL) | AMOUNT DETECTED | RANGE DETECTED                 | IS IT SAFE? DOES IT MEET STANDARDS? | PROBABLE SOURCE  |  |
| <b>NON-DISINFECTION SUBSTANCES</b>   |                  |  |                       |                 |                                |                                     |  |  |
| Copper (b)   | ppm              | 1.3  | AL-1.300              | 0.110           | *0 Samples Above AL            | Yes                                 | CORROSION OF HOUSEHOLD PLUMBING SYSTEMS                      |  |
| Lead (b)   | ppb              | 0  | AL=15                 | 2.5             | *0 Sample Above AL             | Yes                                 | CORROSION OF HOUSEHOLD PLUMBING SYSTEMS                      |  |
| Fluoride (a)   | ppm              | 4  | 4                     | 0.85            | 0.65 - 1.03                    | Yes                                 | WATER ADDITIVE THAT PROMOTES STRONG TEETH                    |  |
| Turbidity (c)  | NTU              | TT   | TT                    | *0.91           | *% of Samples < 0.3 NTU 96.76% | Yes                                 | SOIL RUNOFF  |  |
| Total Organic Carbon (d)   | NA               | TT   | TT                    | 1.2             | 1.0 - 1.7                      | Yes                                 | NATURALLY PRESENT IN THE ENVIRONMENT                         |  |
| Total Coliform (e)   | %                | 0  | 5%                    | 0.0%            | 0% - 0%                        | Yes                                 | NATURALLY PRESENT IN THE ENVIRONMENT                         |  |
| Nitrate  | ppm              | 10   | 10                    | 0.22            | 0.00 - 0.22                    | Yes                                 | EROSION OF NATURAL DEPOSITS                                  |  |
| <b>DISINFECTION SUBSTANCES</b>   |                  |  |                       |                 |                                |                                     |  |  |
| Chlorine   | ppm              | 4  | 4                     | 2.12            | 0.07 - 2.19                    | Yes                                 | WATER ADDITIVE USED TO CONTROL MICROBES                      |  |
| Haloacetic Acids (f)   | ppb              | 0  | 60                    | 26.2            | 15.4 - 47.0                    | Yes                                 | BY-PRODUCT OF DRINKING WATER CHLORINATION                    |  |
| Total Trihalomethanes (f)  | ppb              | 0  | 80                    | 49.4            | 19.0 - 85.3                    | Yes                                 | BY-PRODUCT OF DRINKING WATER CHLORINATION                    |  |
| <b>VOLATILE ORGANIC CHEMICAL (VOC) SUBSTANCES</b>  |                  |  |                       |                 |                                |                                     |  |  |
| p-Dichlorobenzene  | ppb              | 75   | 75                    | 0.6             | 0.59 - 0.62                    | Yes                                 | DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES                 |  |
| <b>Additional information regarding Lead in Drinking Water:</b>  |                  |  |                       |                 |                                |                                     |  |  |
| "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 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure, is available from the Safe Drinking Water Hotline (1-800-426-4791) or on the Web at <a href="http://www.epa.gov/safewater/lead/">http://www.epa.gov/safewater/lead/</a> ." |                  |  |                       |                 |                                |                                     |  |  |

# Table Definitions & Footnotes

- MCL** **Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.
- MCLG** **Maximum Contaminant Level Goal:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs 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 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- ppb** **Parts Per Billion:** 1 part per 1,000,000,000 (same as micrograms per liter), which corresponds to 1 minute in 2,000 years, or 1 penny in \$10 million dollars.
- ppm** **Parts Per Million:** 1 part per 1,000,000 (same as milligram per liter), which corresponds to 1 minute in 2 years, or 1 penny in \$10 thousand dollars.
- AL** **Action Level:** The concentration of a substance that triggers a treatment or other requirement that a water system must follow. \* Utilities may have up to 5 samples above action level and remain in compliance.
- TT** **Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water. \* The HCWSA must report the highest monthly value (0.91 for this year), plus the lowest percentage. #'s below 95% would be a violation.

- mL** **Milliliter or one-thousandth of a liter.** 1 liter is slightly more than a quart.
- NTU** **Nephelometric Turbidity Unit:** A measure of water clarity.
- NA** **Not Applicable.**
- (a)** Fluoride is added in treatment to bring the natural level to the Georgia EPD optimum of 0.8 parts per million (see definition of ppm).
- (b)** 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 pipes or lead-soldered copper pipes, the water is not corrosive. Thus, the amount of lead or copper absorbed by the water is limited to safe levels.
- (c)** Turbidity is a measure of the clarity of the water. The HCWSA monitors it because it is a good indicator of the effectiveness of the filtration system.
- (d)** Total Organic Carbon is a measure of the possible formation of harmful chlorine byproducts. The HCWSA monitors this substance in (3) different ways to receive a complete picture of this substance in our water. Compliance with Federal law is determined by a ratio of all (3) methods and that ratio must be 1 or above.
- (e)** 120 samples are tested each month. No more than 5% may be positive for total coliform bacteria.
- (f)** This level is based on a system-wide, four quarter running average of several samples, as required by EPA testing protocol. *Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.*