

Henry County Water Quality Report



2013

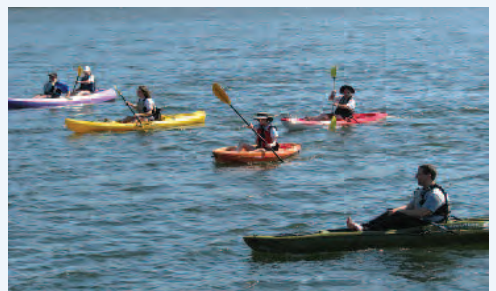
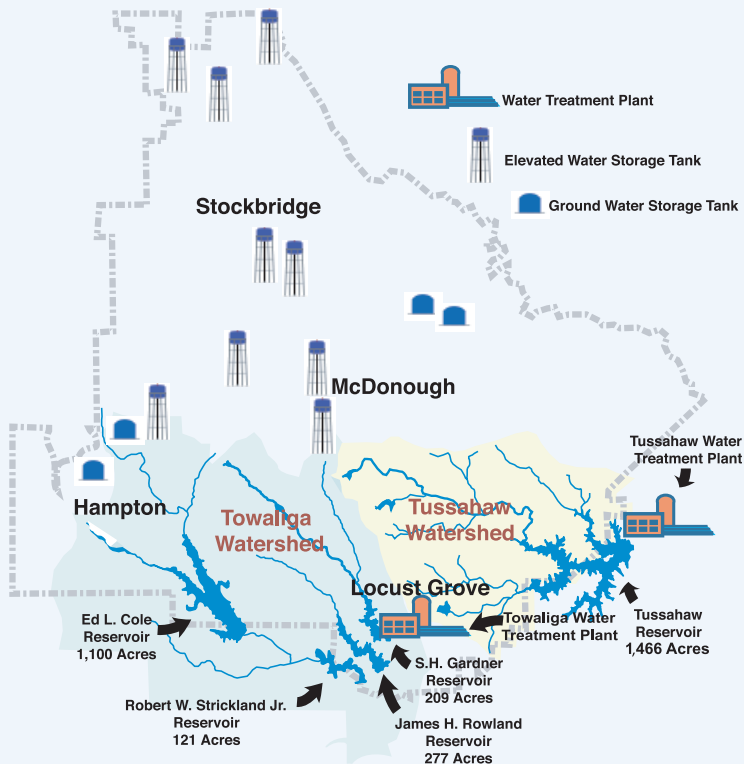
Water Quality Lab Data
Jan. 1 – Dec. 31, 2012

About This Report

Water quality is the highest priority of the Henry County Water Authority (HCWA). 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 for more than 50 years to deliver the highest quality water possible, we're pleased to report we had no water quality violations during 2012. 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 HCWA provides clean, safe drinking water.

The HCWA Water System



Cover photo taken by Ryan Sharpe, HCWA Water Plant Operator

An Overview Of Henry County Water

Henry County Water was founded in 1961 by Act of the Georgia General Assembly, which passed a law this year (2013) renaming the Henry County Water Authority (HCWA).

Our system is supplied by five drinking water reservoirs with a total storage capacity of more than 18 billion gallons, which equates to more than 500 days of supply, even without additional rainfall. The HCWA has approximately 1,408 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).

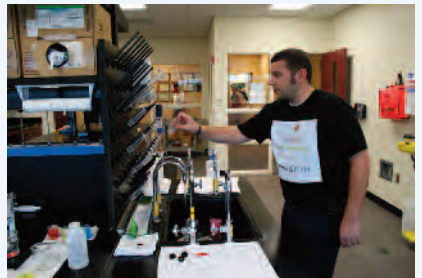
Water Sources

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

A watershed is an area of land that drains into a river, stream, or lake. The HCWA is a surface water system, utilizing raw water from surface water runoff for drinking water production. In 2012, the HCWA had approximately 55,237 metered customers, representing 160,740 consumers, in a county of 209,053 citizens.

Source Water Assessment

The HCWA 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 Henry County Water. The results of the assessment reveal a susceptibility ranking of “low to medium” when combining all individual and non-point source rankings. The source water assessment is available at www.atlantaregional.com/swap/, or by writing to the HCWA at 1695 Highway 20 West; McDonough, GA 30253.



Making Your Water Safe To Drink

The HCWA 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 HCWA's drinking water distribution system involves routine sampling, flushing of water lines, and ongoing maintenance of water storage tanks. In 2012, the HCWA 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 award-winning, 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. We tested for hundreds of additional substances, which were not found in our water.

Test Results							
Regulated Substances Reported January 1 - December 31, 2012. 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
NON-DISINFECTION SUBSTANCES							
Copper (b)	ppm	1.3	AL=1.300	0.066	*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	0.69	0.21 - 0.86	Yes	WATER ADDITIVE THAT PROMOTES STRONG TEETH
Turbidity (c)	NTU	TT	TT	*0.66	***% of Samples < 0.3 NTU 95.48%	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%	0.1%	0% - 0.8%	Yes	NATURALLY PRESENT IN THE ENVIRONMENT
DISINFECTION SUBSTANCES							
		(MRDLG)	(MRDL)				
Chlorine	ppm	4	4	2.23	0.09 - 2.60	Yes	WATER ADDITIVE USED TO CONTROL MICROBES
Haloacetic Acids (f)	ppb	0	60	27.9	12.7 - 57.7	Yes	BY-PRODUCT OF DRINKING WATER CHLORINATION
Total Trihalomethanes (f)	ppb	0	80	58.4	25.8 - 132.1	Yes	BY-PRODUCT OF DRINKING WATER CHLORINATION
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 HCWA 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 http://www.epa.gov/safewater/lead ."							

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 HCWA must report the highest monthly value (0.66 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.
- (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 HCWA 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 HCWA 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.*

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 HCWA, 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 HCWA.

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/safewater; www.amwa.net; www.gaepd.org; and www.awwa.org.

HCWA Recent Capital Improvements

Henry County Water pursued or completed several capital improvements recently:

- The Tussahaw Transmission Main Phase IV extension is complete.
- The Walnut Creek Water Reclamation Facility Phase II expansion (bottom left), from 4 MGD wastewater treatment capacity to 8 MGD, is complete.
- The Walnut Creek Phase II expansion of the Land Application System (LAS) is complete, along with the addition of a second Holding Pond.

An Award-Winning Year for Henry County Water

During this past year (2012 to date), Henry County Water received the following awards from the Georgia Association of Water Professionals (GAWP) and others, while continuing to exceed industry standards for outstanding performance:

- Continued recognition as a WaterFirst Community in Georgia.
- Continued recognition as a WaterSense Promotional Partner by the U.S. EPA.
- The GAWP 2012 Wastewater Collection System Gold Award for achieving a performance grade of 95% or higher, as a large sewer system in Georgia.
- The GAWP Plant of the Year Award in Georgia for the Walnut Creek Facility.
- GAWP Gold Awards for 100% Permit Compliance for the entire year in 2012 at the Bear Creek, Indian Creek, and Walnut Creek Water Reclamation Facilities.
- GAWP Platinum Awards for 100% Permit Compliance for six consecutive years at the Tussahaw and Towaliga Water Treatment Facilities.
- The GAWP District 3 Top Operator Award for the Authority's Phil Johnson.
- The GAWP Best Consumer Confidence Report for 2012.
- The Georgia Meter Madness Championship for Dwayne Lenning.
- The Certificate of Achievement for Excellence in Financial Reporting for the third straight year, by the Government Financial Officers Association.
- The American Water Works Association national Silver Water Drop Award for General Manager Lindy Farmer, for 30-plus years of service.



Opportunities for Public Involvement

The HCWA Board of Directors meets at 8:00 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 HCWA 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.



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HCWA Administrative Leadership

Jimmy Carter, Chairman of the Board
Rick Jeffares, Vice Chairman
Carlotta Harrell, Secretary/Treasurer
Harold Jenkins, Board Member
Mike Barr, Board Member
Lindy D. Farmer, Jr., General Manager
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www.hcwsa.com

