

Our Water Quality Report for 2019

Newton County's Cornish Creek WTP has won the State of Georgia's Best of the Best Water Taste Test Award (2019)

The Newton County Water & Sewerage Authority was created by the Georgia Legislature in 1970 to distribute clean, safe drinking water throughout the unincorporated areas of Newton County. We purchase treated water for drinking and potable uses from the Newton County Board of Commissioners, who own and operate Lake Varner, an 820-acre drinking water and recreational reservoir containing approximately 4 Billion Gallons. The Alcovy River, with its headwaters in Gwinnett County, is the source water for Newton County. Raw water is diverted from the river and pumped to Lake Varner and one smaller reservoir. Located on the Lake Varner Reservoir site, the award-winning Cornish Creek Water Treatment Plant filters and disinfects up to 25 Million Gallons per Day, transforming the source water into clean, safe drinking water for nearly 110,000 citizens in Newton County.

As a customer of the NCWSA system, one should feel confident that Newton County is drought-ready, having the ability to stretch our water supply at Lake Varner from 6 to 8 months under record drought conditions.

Contaminants and potential pollution sources tributary to the Alcovy River and the Reservoirs are identified in a Source Water Assessment Plan (SWAP) completed in May 2000. From the SWAP, we find that the overall susceptibility of the source water was rated medium. The greatest potential threat to our source water quality is agricultural waste ponds, secondary paved roads, and sediment-laden runoff. Recommendations for Alcovy watershed protection contained in the Assessment help to ensure that our customers will be provided with the best quality water in the future. The Source Water Assessment will be updated in 2020.

About Our Drinking Water

Newton County's Cornish Creek WTP has won the State of Georgia's Best Operated Water Treatment Facility for 2019.

In Georgia, sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As raw water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, bacteria, viruses, including Cryptosporidium, which may pass

through or leave wastewater treatment plants, septic systems, agricultural livestock operations, and wildlife areas,

- Inorganic contaminants, such as salts and metals which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming,
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses,
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and come from gas stations, urban storm water runoff, and septic systems, and,
- Radioactive contaminants, which can be naturally occurring, or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the number and type of contaminants present in treated water provided by U.S. water systems. Federal Food and Drug Administration Agency regulations establish limits for contaminants in bottled water which must provide the same protections for consumers.

Drinking water, including bottled water, may reasonably be expected to contain low levels of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk.

Certain individuals may be more vulnerable to contaminants in drinking water than the general population. Elderly persons and infants are more vulnerable along with immuno-compromised persons, those undergoing chemotherapy, organ transplant recipients, those with HIV / AIDS, or other immune system disorders can be particularly at risk for infections. At-risk persons should seek advice from their health care providers about drinking water. The EPA and the Center for Disease Control (CDC) maintain guidelines on the appropriate means to lessen the risk of infection by microbial contaminants. More information is available from Safe Drinking Water Hotline at (800) 426-4791.



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A REFRESHING TOMORROW

2019 WATER QUALITY REPORT

NEWTON COUNTY WATER AND SEWERAGE AUTHORITY



NEWTON COUNTY WATER AND SEWERAGE AUTHORITY

Cornish Creek WTF = Source of 98% of Water Produced in 2019 • Williams Street WTF = Source of 2% of Water Produced in 2019

Detected Contaminants Table

Regulated Contaminants							
Substance	MCL	MCLG	Newton County Water System Maximum	Detected Range	Number of Violations	Year Tested	Typical Sources of Contaminant
Microbiological Contaminants							
Filtered Turbidity	TT = 0.3 NTU 95% of Samples < 0.3 NTU	0 100%	0.23 NTU	0.02 - 0.28 NTU	None	2019	Agriculture, Geology
Total Organic Carbon	TT	N/A	2.17 ppm	0.89 - 2.17 ppm	None	2019	Human & Animal Waste
Organic Compounds							
Total Trihalomethanes	80 ppb	N/A	*125.0 ppb	15.0 - 71.0 ppb	None	2019	Treatment Process By-Product
Haloacetic Acid	60 ppb	N/A	*49.0 ppb	15.0 - 40.0 ppb	None	2019	Treatment Process By-Product
Chlorine	4 ppm	4 ppm	2.27 ppb	0.72 - 2.27 ppm	None	2019	By-product of drinking water chlorination
* TTHMs and HAA5s = Annual averages are used for compliance							
Inorganic Contaminants							
Fluoride	4 ppm	4 ppm	1.07 ppm	0.61 - 1.07 ppm	None	2018	Additive/Naturally Occurring
Substance	Action Level	MCLG	Newton County Water System 90th Percentile	Number of Samples Above Action Level	Number of Violations	Year Tested	Typical Sources of Contaminant
Copper	1300 ppb	N/A	91 ppb	0	None	2017	Household Piping
Lead	15 ppb	N/A	1.1 ppb	0	None	2017	Household Piping
Substance	MCL	MCLG	Newton County Water System Maximum	Detected Range	Number of Violations	Year Tested	Typical Sources of Contaminant
Unregulated Contaminants Substances for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances							
Bromochloroacetic Acid	N/A	N/A	6.4 ppb	3.2 - 6.4 ppb	None	2018	Treatment Process By-Product
Bromodichloroacetic Acid	N/A	N/A	6.0 ppb	2.9 - 6.0 ppb	None	2018	Treatment Process By-Product
Chlorodibromoacetic Acid	N/A	N/A	0.91 ppb	0.47 - .091 ppb	None	2018	Treatment Process By-Product
Dichloroacetic Acid	N/A	N/A	33.0 ppb	7.2 - 33.0 ppb	None	2018	Treatment Process By-Product
Monobromoacetic Acid	N/A	N/A	0.41 ppb	0.32 - 0.41 ppb	None	2018	Treatment Process By-Product
Monochloroacetic Acid	N/A	N/A	3.2 ppb	2.3 - 3.2 ppb	None	2018	Treatment Process By-Product
Trichloroacetic Acid	N/A	N/A	19.0 ppb	5.6 - 19.0 ppb	None	2018	Treatment Process By-Product
Anatoxin-a	N/A	N/A	0.056 ppb	0.052 - 0.056 ppb	None	2018	These contaminants were detected during Unregulated Contaminant monitoring.
Manganese	N/A	N/A	8.4 ppb	7.3 - 8.4 ppb	None	2018	Additional contaminants were monitored and not detected.

DEFINITIONS

MG: Million Gallons • MGD: Million Gallons per Day

Maximum Contaminant Level (MCL): 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.

Treatment Technique (TT): A required process intended to reduce the level of contaminant in drinking water.

Action Level (AL): The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.

Turbidity: A measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

ppm (mg/L): Parts per million or milligrams per liter. One part per million is the equivalent to one minute in 2 years or one penny in 10 thousand dollars.

ppb (µg/L): Parts per billion or micrograms per liter. One part per billion is the equivalent to one minute in 2,000 years or one penny in 10 million dollars.

N/A: Not Applicable