City of Darien
2022 Water Quality Report

Georgia Water System ID #: GA1910000

Water System Contact:	**Phone Number:**
Darien City Hall (Day)	**912-437-6686**
Darien Police Department (Night)	**912-437-6644**

Summary of Water Quality Information

The **City of Darien** drinking water system is owned and operated by the **City of Darien**. The facility office is located at 106 Washington Street in Darien, Georgia. If there are ever any comments or inquiries to be made, please feel free to contact City Hall during regular working hours.

Included in this report is information about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The **City of Darien** is committed to providing your community with clean, safe, and reliable drinking water for everyone. For more information about your water or this report please call City Hall. **This report will not be mailed to individual consumers but is available at City Hall upon request.**

Your water comes from three (3) community *groundwater* wells located inside the **City of Darien**. The water source for wells 101 and 102 is the *Upper Floridan Aquifer*, while well 104 derives water from the *Miocene Aquifer*. In the event of an emergency, water can be obtained from a back-up source, well 103, located within the McIntosh Industrial Park. Necessary treatment is performed at the well sites and may include removal of contaminants, chlorine disinfection, as well as the addition of fluoride. City personnel monitor chlorine residual, fluoride content, and flow rate of the water daily.

A **Wellhead Protection Plan (WHPP)** has been completed for the **City of Darien**. This is a report which the Georgia Department of Natural Resources Environmental Protection Division (GA DNR EPD) identifies and protects against activities that could potentially cause contamination to the water source. The **WHPP** does not cite any potential pollution sources present within the fifteen (15) foot control zone for any of the wells. Cited potential pollution sources for the 100-foot management zone for all three (3) wells include electrical transformers, utility poles, access roads, secondary roads, sewer lines, vehicle parking areas, a maintenance shop, a diesel generator, and storm water runoff. **A copy of the WHPP is available upon request at City Hall.** The **WHPP** and **2022 Water Quality Report** for well 103 can be obtained at the **McIntosh County Board of Commissioners office**.

The water distributed from the **City of Darien** water system is tested for more than eighty (80) drinking water parameters on a periodic basis determined by the GA DNR EPD Drinking Water Program and/or the United States Environmental Protection Agency. Sampling/testing schedules are based on initial contaminant level assessments and can be changed, if deemed necessary. Waivers may be issued for the analyses of any of the compounds mentioned below if analytical data shows that the distributed drinking water in this area is not vulnerable to contamination from these chemicals.

Generally, samples are collected from the **City of Darien** water system for analyses of inorganic compounds, volatile organic compounds, synthetic organic compounds, lead, and copper once in a three (3) year cycle. Drinking water samples are also tested for the presence of nitrate-nitrites, TTHMs and HAA5s annually and for bacteriological content monthly. Radiological monitoring is performed every nine (9) years.

During 2022, the **City of Darien** submitted water samples for the analyses of bacteriological content, lead, copper, nitrate-nitrites, TTHMs, and HAA5s. **We are proud to inform you that the City of Darien did not have any violations of water quality parameters during 2022**. All detected contaminants are delineated in the accompanying charts. Any contaminants not listed had results less than the detection limits and/or MCLs.

For the 2022 lead and copper monitoring event, ten (10) representative locations were selected throughout your community. Locations included single and multi-family residences, municipal buildings, and/or commercial buildings. Detectable levels of lead and copper were found in some of the analyzed samples; however, **NO** sampled site exceeded the *action level* for lead or copper.

Lead and copper are metals naturally found throughout the environment in soil and water. These metals can also be found in lead, copper, or brass household plumbing pipes and fixtures. Even consumer products such as paints, pottery, and pewter can contain lead and/or copper. Corrosion or deterioration of lead or copper-based materials, as well as erosion of natural deposits can release these metals into the drinking water.

*If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The **City of Darien** 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. 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.

Additionally, the following measures may be taken to minimize exposure to lead and/or copper:

- *Use cold water for drinking or cooking.*
- *Do not cook with or consume water from the hot water faucet.*
- *Do not use hot water for making baby formula.*
- *Use only "lead-free" solder, fluxes and materials in new household plumbing and repairs.*

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 ***EPA Safe Drinking Water Hotline (1-800-426-4791).***

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 ***EPA Safe Drinking Water Hotline (1-800-426-4791).***

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As 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 <u>may</u> be present in source water include the following:

- ***Microbial contaminants****, i.e., viruses and bacteria from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
- ***Inorganic contaminants****, i.e., salts and metals, can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.*
- ***Pesticides and herbicides*** *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 can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.*
- ***Radioactive contaminants****, which can be naturally occurring or the result of oil/gas production and mining activities.*

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The ***City of Darien*** *strives to maintain the highest standards of performance and quality possible. In order to maintain a safe and dependable water supply, improvements that benefit the community must be made. Please help keep these costs as low as possible by utilizing good water conservation practices.*

<u>DEFINITION OF TERMS AND ABBREVIATIONS USED IN THIS REPORT</u>

<u>Maximum Contaminant Level (MCL):</u> "*The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology."*

<u>Maximum Contaminant Level Goal (MCLG):</u> *"The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety."*

<u>Secondary Maximum Contaminant Level (SMCL):</u> reasonable goals for drinking water quality. Exceeding SMCL's may adversely affect odor or appearance, but there is no known risk to human health.

<u>Treatment Technique (TT):</u> *"A required process intended to reduce the level of a contaminant in drinking water."*

<u>Maximum Residual Disinfectant Level (MRDL):</u> *"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."*

<u>Maximum Residual Disinfectant Level Goal (MRDLG):</u> *"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.*

<u>TTHMs (Total Trihalomethanes):</u> One or more of the organic compounds Chloroform, Bromodichloromethane, Chlorodibromomethane, and/or Bromoform.

<u>HAA5s (Haloacetic Acids):</u> One or more of the organic compounds Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Monobromoacetic Acid, and Dibromoacetic Acid.

City of Darien Water System
2022 Water Quality Data
WSID: GA1910000

The table below lists all the drinking water contaminants that have been detected in your drinking water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The data presented in this table is from testing done during the year noted. The Federal Environmental Protection Agency (EPA) and the Georgia Department of Natural Resources Environmental Protection Division (EPD) require monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Parameters, values, and/or sources may vary.

DETECTED INORGANIC CONTAMINANTS TABLE

Parameter	Units	MCL [SMCL]	MCLG	Darien Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Chlorine	ppm	4	4	0.8	0.6 to 0.8	2022	**No**	Water additive used for control of microbes
Fluoride	ppm	4 [2]	4	0.6	0.6 to 0.6	2021	**No**	Erosion of natural deposits; water additive to promote strong teeth
Barium	ppm	2	2	0.051	0.051 to 0.051	2021	**No**	Erosion of natural deposits

DETECTED ORGANIC CONTAMINANTS TABLE

Parameter	Units	MCL	MCLG	Darien Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
HAA5	ppb	60	**	2.4	1.8 to 2.4	2022	**No**	By product of drinking water disinfection
TTHMs	ppb	80	**	22.1	12.6 to 22.1	2022	**No**	By product of drinking water disinfection

OTHER DETECTED UNREGULATED CONTAMINANTS TABLE

Parameter	Units	MCL [SMCL]	MCLG	Darien Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Sodium	ppm	**	**	28.0	28.0 to 28.0	2021	**No**	Erosion of natural deposits

LEAD AND COPPER MONITORING RESULTS

Parameter	Units	Action Level	MCLG	Darien 90th Percentile	# of sample sites above Action Level	Sample Date	Violation No/Yes	Typical Source of Contaminant
Lead	ppb	15	0	0.00	0 of 10	2022	**No**	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.0386	0 of 10	2022	**No**	Corrosion of household plumbing

MICROBIOLOGICAL MONITORING RESULTS

Parameter	Units	MCL	MCLG	Darien Water System Results	Positive Sample Date (Month/Year)	Sample Year	Violation No/Yes	Typical Source of Contaminant
Total Coliform	Present/	1*	0	0	N/A	2022	**No**	Naturally present in the environment
E. coli	Absent	0	0	0	N/A	2022	**No**	Human and animal fecal waste

RADIONUCLIDES TABLE

Parameter	Units	MCL	MCLG	Darien Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Alpha emitters	pCi/L	15	0	ND	N/A	2015	**No**	Erosion of natural deposits
Combined Radium 226/228	pCi/L	5	0	ND	N/A	2015	**No**	Erosion of natural deposits

Total Coliform Rule MCL= 1 positive sample for systems that collect <40 samples a month** * No established MCL, SMCL or MCLG**

•**N/A**: Not applicable to this contaminant •**ppb (ug/L)**: parts per billion or micrograms per liter •**ppm (mg/L)**: parts per million or milligrams per liter •**pCi/l**: picocuries per liter, a measurement of radiation

•**ND (Not Detected)**: By regulation, this substance or group of substances was tested for in our finished tap water; however, none was detected at the testing limit.

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