



THE WATER WORKS BOARD OF THE CITY OF AUBURN 2021 CONSUMER CONFIDENCE REPORT

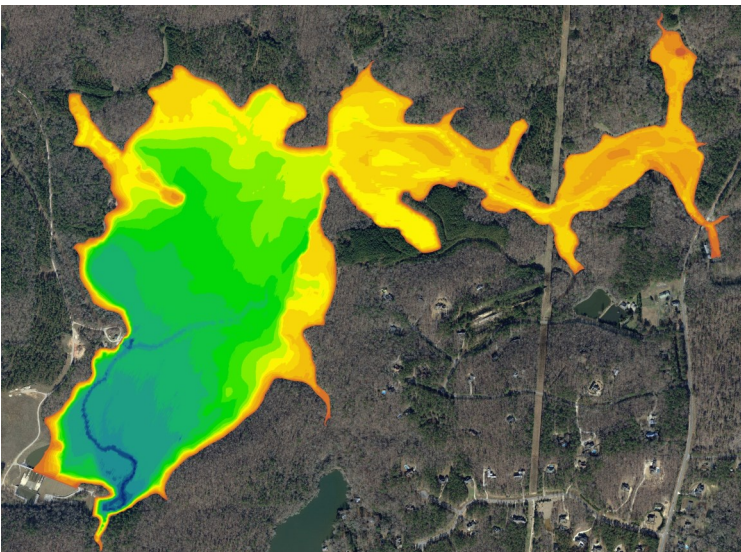


OUR WATER RESOURCES

The Water Works Board of the City of Auburn (AWWB) is proud to present its 2021 Consumer Confidence Report. In compliance with Federal and State laws, the AWWB routinely monitors for numerous contaminants in your drinking water. The tables in this report present the results of water quality monitoring for the calendar year 2021. Your drinking water met all water quality standards in 2021. This is the 25th issue of a series of water quality reports made available to customers annually, as required by the United States Environmental Protection Agency (EPA). Reports are published mid-year for the previous year's monitoring results.

The AWWB's main water supply comes from Lake Ogletree (pictured above), which is located just southeast of Auburn. Lake Ogletree is approximately 300 acres and is fed primarily by Chewacla and Nash Creeks. The total watershed area contributing to the lake is 33 square miles. Water from Lake Ogletree was used to produce 50.2% of your drinking water in 2021. The AWWB also operates two groundwater wells to meet increasing water demand. These wells draw water from the Chewacla Marble and Hollis Quartzite aquifers. Well #3 contributed 16% of your drinking water, and Well #4 provided 22.4% of your drinking water in 2021. In addition to these sources, the AWWB purchases drinking water from Opelika Utilities, which receives its raw water from Saughatchee Lake and the Halawakee Creek Embayment on Lake Harding. Drinking water is purchased from Opelika Utilities to supplement seasonal high demand. Water purchased from Opelika Utilities accounted for 11.3% of your drinking water in 2021. Total water use from all sources was 2.68 billion gallons, which is the 3rd highest on record for the AWWB.

Most drinking water contaminants originate from surface water runoff from natural deposits, vehicles, industry, construction, farming, and wildlife. In addition to mandatory monitoring of its treatment and distribution system, the AWWB voluntarily performs year-round source water monitoring within the Lake Ogletree watershed for nutrients, bacteria, and taste & odor causing compounds. The City of Auburn also helps protect and manage the Lake Ogletree watershed by both regulating development density within its jurisdiction, and working with property owners to encourage good on-site methods to manage pollutant runoff. Information on the AWWB's various monitoring programs and reports is available for review at the Bailey-Alexander Water and Sewer Complex, located at 1501 W. Samford Avenue, or online at <https://www.auburnalabama.org/water-resource-management>. Please call (334) 501-3060 for more information.



Above: Bathymetric map of Lake Ogletree, Auburn's principal water source.

Below: The Bailey-Alexander Water and Sewer Complex houses field operations, administration, and billing services.



TABLE OF PRIMARY CONTAMINANTS

At high levels some primary contaminants are known to pose health risks to humans. The table below provides a quick glance of primary contaminants monitored for in 2021, and the results of monitoring if contaminants were detected.

Bacteriological	MCL	Highest Detected Level	Synthetic Organic Chemicals	MCL	Highest Detected
Total Coliform Bacteria	5%	< 5%	2,4,5-TP (Silvex)	50 ppb	ND
Radiological	MCL	Highest Detected Level	2,4-D	70 ppb	ND
Gross Alpha	15 pCi/L	0.462	Alachlor (Lasso)	2 ppb	ND
Radium-228	5 pCi/L	0.548	Atrazine	3 ppb	ND
Turbidity	MCL	Highest Detected Level	Benzo(A)Pyrene	200 ppt	ND
Turbidity	TT (NTU)	0.29	Carbofuran	40 ppb	ND
Inorganic Chemicals	MCL	Highest Detected Level	Chlordane	2 ppb	ND
Antimony	6 ppb	ND	Dalapon	200 ppb	ND
Arsenic	10 ppb	ND	1,2 Dibromo-3-Chloropropane (DBCP)	200 ppt	ND
Barium	2 ppm	0.0279	Di(2-Ethylhexyl)Adipate	400 ppb	ND
Beryllium	4 ppb	ND	Di(2-Ethylhexyl)Phthalate	6 ppb	0.41
Cadmium	5 ppb	ND	Dinoseb	7 ppb	ND
Chlorine	4 ppm MRDL	1.53****	Diquat	20 ppb	ND
Chromium	100 ppb	0.58†	Endothall	100 ppb	ND
Copper	AL = 1.3 ppm	90th percentile value = 0.1701	Ethylene Dibromide (EDB)	50 ppt	ND
Cyanide	200 ppb	ND	Endrin	2 ppb	ND
Fluoride	4 ppm	1.3	Glyphosate	700 ppb	ND
Lead	AL = 15 ppb	90th percentile value = 0.883	Heptachlor	400 ppt	ND
Mercury	2 ppb	ND	Heptachlor Epoxide	200 ppt	ND
Nickel	100 ppb	0.62†	Hexachlorobenzene (HCB)	1 ppb	ND
Nitrate	10 ppm	0.502	Hexachlorocyclopentadiene	50 ppb	ND
Nitrite	1 ppm	ND	Lindane	200 ppt	ND
Selenium	50 ppb	ND	Methoxychlor	40 ppb	ND
Thallium	2 ppb	ND	Oxamyl (Vydate)	200 ppb	ND
Disinfection By-products	MCL	Highest Detected Level	Polychlorinated Biphenyls (PCB)	500 ppt	ND
Total Trihalomethanes (TTHMs)	80 ppb	67.20**	Pentachlorophenol	1 ppb	ND
Haloacetic acids (HAA5)	60 ppb	43.73**	Picloram	500 ppb	ND
Chlorite	1 ppm	0.833*** †	Simazine	4 ppb	ND
Organic Chemicals	MCL	Highest Detected Level	Toxaphene	3 ppb	ND
Total Organic Carbon	TT (ppm)	1.98*****	Volatile Organic Chemicals	MCL	Highest Detected
LEGEND FOR TABLES AL: Action Level - The concentration of a contaminant that triggers treatment or other requirement a water system shall follow. 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. 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. 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. 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 microbial contaminants. TT: Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water. ND: Not detected N/A: Not applicable NTU: Nephelometric Turbidity Unit pCi/L: picocuries per liter ppt: parts per trillion ppb: parts per billion ppm: parts per million µS/cm: microsiemens per centimeter * Annual average ** Local running annual average of quarterly samples *** Highest average of sample sets **** Compliance is based on a running annual average, computed quarterly from monthly samples ***** Running annual average of monthly samples † Amount detected in water purchased from Opelika Utilities before entering the Auburn Water Works Board distribution system.			1,1,1-trichloroethane	200 ppb	ND
			1,1,2-trichloroethane	5 ppb	ND
			1,2-dichloroethane	5 ppb	ND
			1,1-dichloroethylene	7 ppb	ND
			1,2,4-trichlorobenzene	70 ppb	ND
			1,2-dichloropropane	5 ppb	ND
			O-Dichlorobenzene	600 ppb	ND
			P-Dichlorobenzene	75 ppb	ND
			Benzene	5 ppb	ND
			Carbon Tetrachloride	5 ppb	ND
			Chlorobenzene	100 ppb	ND
			Cis-1,2-dichloroethene	70 ppb	ND
			Ethylbenzene	700 ppb	ND
			Styrene	100 ppb	ND
			Tetrachloroethylene	5 ppb	ND
			Toluene	1 ppm	ND
			Trans-1,2 Dichloroethylene	100 ppb	ND
			Vinyl chloride	2 ppb	ND
			Xylenes	10 ppm	ND
			Dichloromethane	5 ppb	ND
Dioxin and Asbestos Monitoring Statement: Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required. Copper and Lead results are from the most recent testing done in 2019. These samples are conducted every 3 years. The next round of required sampling is currently scheduled for 2022.					

TABLE OF DETECTED CONTAMINANTS

PRIMARY STANDARDS - Mandatory standards set by the Safe Drinking Water Act used to protect public health. These apply to all public water systems.

Contaminant	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Dates	Likely Sources
Turbidity	NTU	TT	N/A	0.29	0.01 - 0.29	Daily	Soil runoff.
Inorganic Chemicals	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Dates	Likely Sources
Chromium	ppb	100	100	0.58†	0.35 - 0.58†	4/21/2021	Erosion of natural deposits; discharge from steel and pulp mills.
Barium	ppm	2	2	0.0279	0.016† - 0.0279	4/21/2021	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chlorine	ppm	MRDL 4	MRDLG 4	1.53****	(Monthly Average) 1.4 - 1.7	70 samples per month	Water additive used to control microbes.
Copper	ppm	AL = 1.3	1.3	90th percentile value 0.1701	0.0109 - 0.265	July - Aug. 2019	Corrosion of household plumbing systems; erosion of natural deposits.
Fluoride	ppm	4	4	1.32	0.65 - 1.32	Daily	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead	ppb	AL = 15	0	90th percentile value 0.883	ND - 1.8	July - Aug. 2019	Corrosion of household plumbing systems; erosion of natural deposits.
Nitrate	ppm	10	10	0.502	0.17† - 0.502	4/21/2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nickel	ppb	100	100	0.62†	0.23† - 0.62†	4/21/2021	Corrosion of household plumbing systems; erosion of natural deposits.
Disinfection Byproducts	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Dates	Likely Sources
Total Trihalomethanes (TTHMs)	ppb	80	N/A	67.20**	32.88** - 67.20**	Quarterly	By-product of drinking water disinfection.
Haloacetic acids (HAA5)	ppb	60	N/A	43.73**	22.98** - 43.73**	Quarterly	By-product of drinking water disinfection.
Chlorite	ppm	1	0.8	0.833*** †	0.53 † - 0.99 †	Monthly	By-product of drinking water disinfection.
Radiological	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Dates	Likely Sources
Gross Alpha	pCi/L	15	0	0.462	(-)0.663 - 0.462	2/17, 5/19, 8/18, 11/17/2021	Erosion of natural deposits.
Radium 228	pCi/L	5	0	0.548	0.339 - 0.548	2/17, 5/19, 8/18, 11/17/2021	Erosion of natural deposits.
Synthetic Organic Chemicals	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Dates	Likely Sources
Di(2-Ethylhexyl)Phthalate	ppb	6	6	0.41	ND - 0.41	2/17, 5/19, 8/18, 11/17/2021	Discharge from rubber and chemical factories.

AWWB NEWS AND PUBLIC INFORMATION

The AWWB continuously strives to provide the highest quality drinking water services for the City's increasing population of 76,143 (2020 U.S. Census). The AWWB encourages the public to participate in the monthly Board meetings. Board meetings are typically held at 4:00 P.M. on the Thursday following the third Tuesday of each month in the AWWB Conference Room at the Bailey-Alexander Complex located at 1501 W. Samford Avenue. The Water Board members are Brad Wilson (Chair), Jennifer Chambliss, Esq. (Vice Chair), Bernard Hill, Ph. D. (Secretary), Thomas Sparrow, and David Reaves. If you have any questions concerning public participation or water quality, please call the Water Resource Management Office at (334) 501-3060. If you have questions about setting up an account, water service changes, or billing inquiries, please contact the Utility Billing Office at (334) 501-3050. For additional information, please visit us online at <https://www.auburnalabama.org/water-resource-management>.

REPORTING NON-COMPLIANCE NOTICE

The AWWB is required to monitor your drinking water for specific contaminants on a regular basis. The AWWB routinely samples your drinking water for the presence of radionuclides (Radium-228 and gross alpha emitters). In accordance with Alabama Department of Environmental Management (ADEM) regulations, sample results must be submitted to ADEM either by the 10th of the following month that the samples were collected, or 10 days after the end of the monitoring period. In November 2021, the Radium-228 and gross alpha samples were taken, however the laboratory did not report the results to ADEM by the deadline of January 10th, 2022. This resulted in a reporting non-compliance violation. The results of these tests showed the level of Radium-228 and gross alpha were below the maximum contaminant level required by EPA and ADEM. This reporting non-compliance violation does not impact the quality of water delivered to our customers, nor does it affect public health.

TABLE OF DETECTED CONTAMINANTS

SECONDARY STANDARDS - Non-mandatory standards established as guidelines to assure good aesthetic qualities such as taste, color, and odor.

Inorganic Chemicals	Units	MCL	MCLG	Highest Detected Level or Annual Average (*)	Range of Detected Levels	Test Dates	Likely Sources
Chloride	ppm	250	N/A	11.4 ⁺	ND ⁺ - 11.4 ⁺	4/21/2021	By-product of drinking water disinfection.
Iron	ppb	300	N/A	30	ND - 30	Daily	Erosion of natural deposits.
Manganese	ppb	50	N/A	20	ND - 20	Daily	Erosion of natural deposits; runoff from landfills.
Sulfate	ppm	500	N/A	18.9 ⁺	5.76 ⁺ - 18.9 ⁺	4/21/2021	Erosion of natural deposits.
Total Dissolved Solids (TDS)	ppm	500	N/A	107 ⁺	73.5 ⁺ - 107 ⁺	4/21/2021	Erosion of natural deposits.
Zinc	ppm	5	N/A	0.179	0.0008 ⁺ - 0.179	4/21/2021	Corrosion inhibitor.
pH	units	6.5-8.5	N/A	7.27*	7.00 - 7.70 ⁺	Daily	Natural deposits; treatment at water plant.
Aluminum	ppm	0.2	N/A	0.111 ⁺	ND ⁺ - 0.111 ⁺	4/21/2021	Erosion of natural deposits.
Unregulated Inorganic Chemicals	Units	MCL	MCLG	Highest Detected Level or Annual Average (*)	Range of Detected Levels	Test Dates	Likely Sources
Calcium	ppm	N/A	N/A	9.55	2.83 ⁺ - 9.55	4/21/2021	Natural deposits; treatment at water plant.
Specific Conductance	µS/cm	N/A	N/A	175 ⁺	108 ⁺ - 175 ⁺	4/21/2021	Natural deposits.
Carbon Dioxide	ppm	N/A	N/A	20.3*	8 - 40	Daily	Natural deposits.
Magnesium	ppm	N/A	N/A	2.44	1.64 ⁺ - 2.44	4/21/2021	Natural deposits.
Sodium	ppm	N/A	N/A	28.3 ⁺	5.81 - 28.3 ⁺	4/21/2021	Natural deposits.
Alkalinity	ppm	N/A	N/A	46.96*	20.3 ⁺ - 72	Daily	Natural deposits.
Total Hardness	ppm	N/A	N/A	36.7	12.2 ⁺ - 36.7	4/21/2021	Natural deposits.
Unregulated Organic Chemicals	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Date	Likely Sources
Total Organic Carbon	ppm	TT	N/A	1.98*****	1.74 - 1.98	Monthly	Naturally present in the environment.

IMPORTANT HEALTH INFORMATION FROM EPA

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States EPA Safe Drinking Water Hotline at 1-800-426-4791. 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 land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Some people may be more vulnerable to contaminants in drinking water than the general population. Individuals with compromised immune systems such as cancer patients undergoing chemotherapy, organ transplant recipients, individuals who have AIDS or who are HIV-positive, individuals with immune system disorders, elderly persons and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their health care providers. EPA and the Centers for Disease Control (CDC) guidelines for the appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

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 AWWB 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 <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.