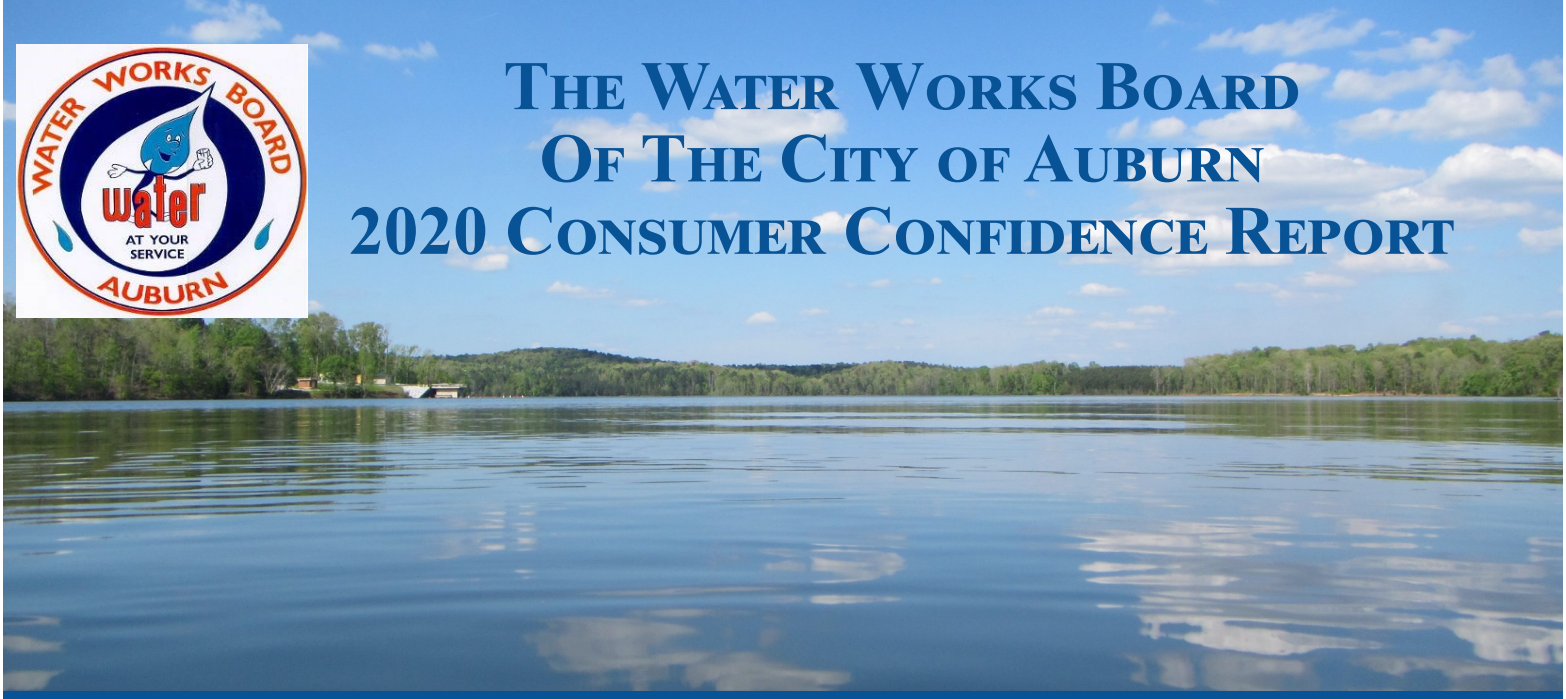

The Water Works Board Of The City of Auburn 2020 Consumer Confidence Report

OUR WATER RESOURCES

The Water Works Board of the City of Auburn (AWWB) is proud to present its 2020 Consumer Confidence Report. In compliance with Federal and State laws, the AWWB routinely monitors for numerous constituents in your drinking water. The tables in this report present the results of water quality monitoring for the calendar year 2020. This is the 24th issue of a series of water quality reports made available to you annually, as required by the United States Environmental Protection Agency (EPA). Reports are published mid-year for the previous year's monitoring results.

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 Creek and Nash Creek. The total watershed area contributing to the lake is 33 square miles. In 2020, water from Lake Ogletree was used to produce 61% of your drinking water. The AWWB now operates two groundwater wells to meet increasing water demand. Well #3 was constructed in 2012 and contributed 17% of your drinking water in 2020. Construction on Well #4 was finished in late 2020, and this well provided 2% of your drinking water last year. In addition to these sources, the AWWB purchases drinking water from Opelika Utilities, which receives its raw water from Saugahatchee 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 20% of your drinking water in 2020.

Most drinking water contaminants originate from surface water runoff from natural deposits, vehicles, industry, construction, farming, and wildlife. Therefore, 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: The AWWB's newly constructed Well 4 facility.

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 2020, and the results of monitoring if contaminants were detected.

Bacteriological	MCL	Highest Detected Level
Total Coliform Bacteria	5%	< 5%
Radiological	**MCL**	**Highest Detected Level**
Gross Alpha	15 pCi/L	0.807
Radium 228	5 pCi/L	1.23
Turbidity	**MCL**	**Highest Detected Level**
Turbidity	TT (NTU)	0.25
Inorganic Chemicals	**MCL**	**Highest Detected Level**
Antimony	6 ppb	ND
Arsenic	10 ppb	ND
Barium	2 ppm	0.0246
Beryllium	4 ppb	ND
Cadmium	5 ppb	ND
Chlorine	4 ppm MRDL	1.42****
Chromium	100 ppb	ND
Copper	AL = 1.3 ppm	90th percentile value = 0.1701
Cyanide	200 ppb	ND
Fluoride	4 ppm	1.7
Lead	AL = 15 ppb	90th percentile value = 0.883
Mercury	2 ppb	0.25†
Nitrate	10 ppm	0.503
Nitrite	1 ppm	ND
Selenium	50 ppb	ND
Thallium	2 ppb	ND
Disinfection By-products	**MCL**	**Highest Detected Level**
Total Trihalomethanes (TTHMs)	80 ppb	52.53** (55.1** †)
Haloacetic acids (HAA5)	60 ppb	39.98**
Chlorite	1 ppm	0.818*** †
Organic Chemicals	**MCL**	**Highest Detected Level**
Total Organic Carbon	TT (ppm)	2.14*****

Synthetic Organic Chemicals	MCL	Highest Detected
2,4,5-TP (Silvex)	50 ppb	ND
2,4-D	70 ppb	ND
Alachlor (Lasso)	2 ppb	ND
Atrazine	3 ppb	ND
Benzo(A)Pyrene	200 ppt	ND
Carbofuran	40 ppb	ND
Chlordane	2 ppb	ND
Dalapon	200 ppb	ND
1,2 Dibromo-3-Chloropropane (DBCP)	200 ppt	ND
Di(2-Ethylhexl)Adipate	400 ppb	ND
Di(2-Ethylhexl)Phthalate	6 ppb	ND
Dinoseb	7 ppb	ND
Diquat	20 ppb	ND
Endothall	100 ppb	ND
Ethylene Dibromide (EDB)	50 ppt	ND
Endrin	2 ppb	ND
Glyphosate	700 ppb	ND
Heptachlor	400 ppt	ND
Heptachlor Epoxide	200 ppt	ND
Hexachlorobenzene (HCB)	1 ppb	ND
Hexachlorocyclopentadiene	50 ppb	ND
Lindane	200 ppt	ND
Methoxychlor	40 ppb	ND
Oxamyl (Vydate)	200 ppb	ND
Polychlorinated Biphenyls (PCB)	500 ppt	ND
Pentachlorphenol	1 ppb	ND
Picloram	500 ppb	ND
Simazine	4 ppb	ND
Toxaphene	3 ppb	ND

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.

Volatile Organic Chemicals	MCL	Highest Detected
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	0.00485
Dichloromethane	5 ppb	1.41

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	0.25	0.01 - 0.25	Daily	Soil runoff.
Inorganic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Dates**	**Likely Sources**
Mercury	ppb	2	2	0.25†	ND - 0.25†	3/16/2020 4/20/2020	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills & croplands.
Barium	ppm	2	2	0.0246	0.0195† - 0.0246	3/16/2020 4/20/2020	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chlorine	ppm	MRDL = 4	MRDLG = 4	1.42****	(Monthly Average) 1.2 - 1.5	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	1.70	0.35 - 1.70	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	0.503	0.051 - 0.503	3/16/2020 4/20/2020	Runoff from fertilizer use; Leaching from septic tanks, sewage; 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	52.53** (55.1** †)	32.23** - 52.53** (8.4** - 55.1** †)	Quarterly	By-product of drinking water disinfection.
Haloacetic acids (HAA5)	ppb	60	N/A	39.98**	23.15** - 39.98** (7.4** - 33.7** †)	Quarterly	By-product of drinking water disinfection.
Chlorite	ppm	1	0.8	0.818*** †	ND † - 0.960 †	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	0.807	Single Sample	10/21/2020	Erosion of natural deposits.
Radium 228	pCi/L	5	0	1.23	Single Sample	10/21/2020	Erosion of natural deposits.
Volatile Organic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Dates**	**Likely Sources**
Xylenes (total)	ppm	10	0	0.00485	ND - 0.00485	4/20, 10/21, 10/30, 11/6/2020	Discharge from petroleum factories; Discharge from chemical factories.
Dichloromethane	ppb	5	0	1.41	ND - 1.41	4/20, 10/21, 10/30, 11/6/2020	Discharge from pharmaceutical and chemical factories.

PER- and POLYFLUOROALKYL SUBSTANCES (PFAS) are a group of man-made chemicals that have been used in a variety of industries since the 1940s, and are found in a wide range of consumer products (cookware, stain repellants, pizza boxes, and firefighting foam). There is evidence that exposure to PFAS can lead to adverse health outcomes. Information on PFAS is available from the EPA at *https://www.epa.gov/pfas/basic-information-pfas*. The PFAS chemicals below were detected in 2020. These chemicals do not have health-based standards set under the Safe Drinking Water Act.

PFAS Chemical	Units	Highest Detected Level	Range of Detected Levels	Test Date
Perfluorobutanesulfonic acid (PFBS)	ppt	3.4	ND - 3.4	5/20, 7/15, 10/21/2020
Perfluoroheptanoic acid (PFHpA)	ppt	4.2	ND - 4.2	5/20, 7/15, 10/21/2020
Perfluorohexanesulfonic acid (PFHxS)	ppt	3.2	ND - 3.2	5/20, 7/15, 10/21/2020
Perfluorohexanoic acid (PFHxA)	ppt	3.6	ND - 3.6	5/20, 7/15, 10/21/2020
Perfluorooctanesulfonic acid (PFOS)	ppt	3.8	ND - 3.8	5/20, 7/15, 10/21/2020
Perfluorooctanoic acid (PFOA)	ppt	12	ND - 12	5/20, 7/15, 10/21/2020

UNREGULATED CONTAMINANTS - EPA uses the Unregulated Contaminant Monitoring Rule (UCMR 4) to collect data for contaminants that are suspected to be present in drinking water but do not have health-based standards set under the Safe Drinking Water Act.

UCMR 4 Contaminant	Units	Highest Detected Level	Range of Detected Levels	Test Date	Likely Sources
HAA5	ppb	31	24.2 - 31	1/16/2020	By-product of drinking water disinfection.
HAA6Br	ppb	5.03	3.83 - 5.03	1/16/2020	By-product of drinking water disinfection.
HAA9	ppb	35.16	29.14 - 35.16	1/16/2020	By-product of drinking water disinfection.
Manganese	ppb	1.2	Single Sample	1/16/2020	Erosion of natural deposits; runoff from landfills.
Total Organic Carbon	ppb	3660	Single Sample	1/16/2020	Naturally present in the environment.
Anatoxin-a	ppb	0.077	ND - 0.077	6/3, 6/17, 7/6, 7/20, 8/5, 8/19, 9/9, 9/23/2020	Naturally present in the environment; produced by cyanobacteria in water bodies.

UCMR 4 Contaminants Tested for, but Not Detected

Alpha-BHC	Chlorpyrifos	Dimethipin	Ethoprop	Bromide	1-Butanol	Monobromoacetic acid	Tebuconazole	O-Toluidine	2-Propen-1-ol
Merphos-Oxone (Tribufos)	Oxyfluorfen	Permethrin	Profenofos	Germanium	2-Methoxyethanol	Tribromoacetic acid	Quinoline	Butylated Hydroxyanisole	

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	11.5†	6.04 - 11.5†	3/16, 4/20/2020	By-product of drinking water disinfection.
Iron	ppb	300	N/A	20	ND - 20	Daily	Erosion of natural deposits.
Manganese	ppb	50	N/A	30	ND - 30	Daily	Erosion of natural deposits; runoff from landfills
Sulfate	ppm	500	N/A	20.6†	12.4 - 20.6†	3/16, 4/20/2020	Erosion of natural deposits.
Total Dissolved Solids (TDS)	ppm	500	N/A	99†	53 - 99†	3/16, 4/20/2020	Erosion of natural deposits.
Zinc	ppm	5	N/A	0.0458	ND† - 0.0458	3/16, 4/20/2020	Corrosion inhibitor.
pH	units	6.5-8.5	N/A	7.28*	6.70† - 7.50	Daily	Natural deposits; treatment at water plant.
Aluminum	ppm	0.2	N/A	0.109†	0.02 - 0.109†	3/16, 4/20/2020	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	8.13	2.30† - 8.13	3/16, 4/20/2020	Natural deposits; treatment at water plant.
Specific Conductance	µS/cm	N/A	N/A	185†	99 - 185†	3/16, 4/20/2020	Natural deposits.
Carbon Dioxide	ppm	N/A	N/A	28.1*	9 - 90	Daily	Natural deposits.
Magnesium	ppm	N/A	N/A	2.09	1.30† - 2.09	3/16, 4/20/2020	Natural deposits.
Sodium	ppm	N/A	N/A	5.12	2.17† - 5.12	3/16, 4/20/2020	Natural deposits.
Alkalinity	ppm	N/A	N/A	36.33*	16 - 55	Daily	Natural deposits.
Total Hardness	ppm	N/A	N/A	28.6	10.2† - 28.6	3/16, 4/20/2020	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	2.14*****	1.90 - 2.14	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 Environmental Protection Agency (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*.

AWWB NEWS AND PUBLIC INFORMATION

The AWWB continuously strives to provide the highest quality drinking water services for the City's increasing population of 66,259 (2019 U.S. Census Estimate). 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 Dr. Jeff Clary (Chairman), Butch Brock (Vice Chairman), Jennifer Chambliss, Esq. (Secretary), Brad Wilson (Member), and Dr. Bernard Hill (Member). 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.

WATER TREATMENT PROCESS

Water is pumped from Lake Ogletree to the James Estes Water Treatment Plant. At the plant, a staff of highly trained employees are responsible for the proper maintenance and operation of the various equipment and treatment infrastructure to ensure that your water is consistently treated to levels that meet or exceed Federal and State water quality standards. Below is a diagram outlining this process.