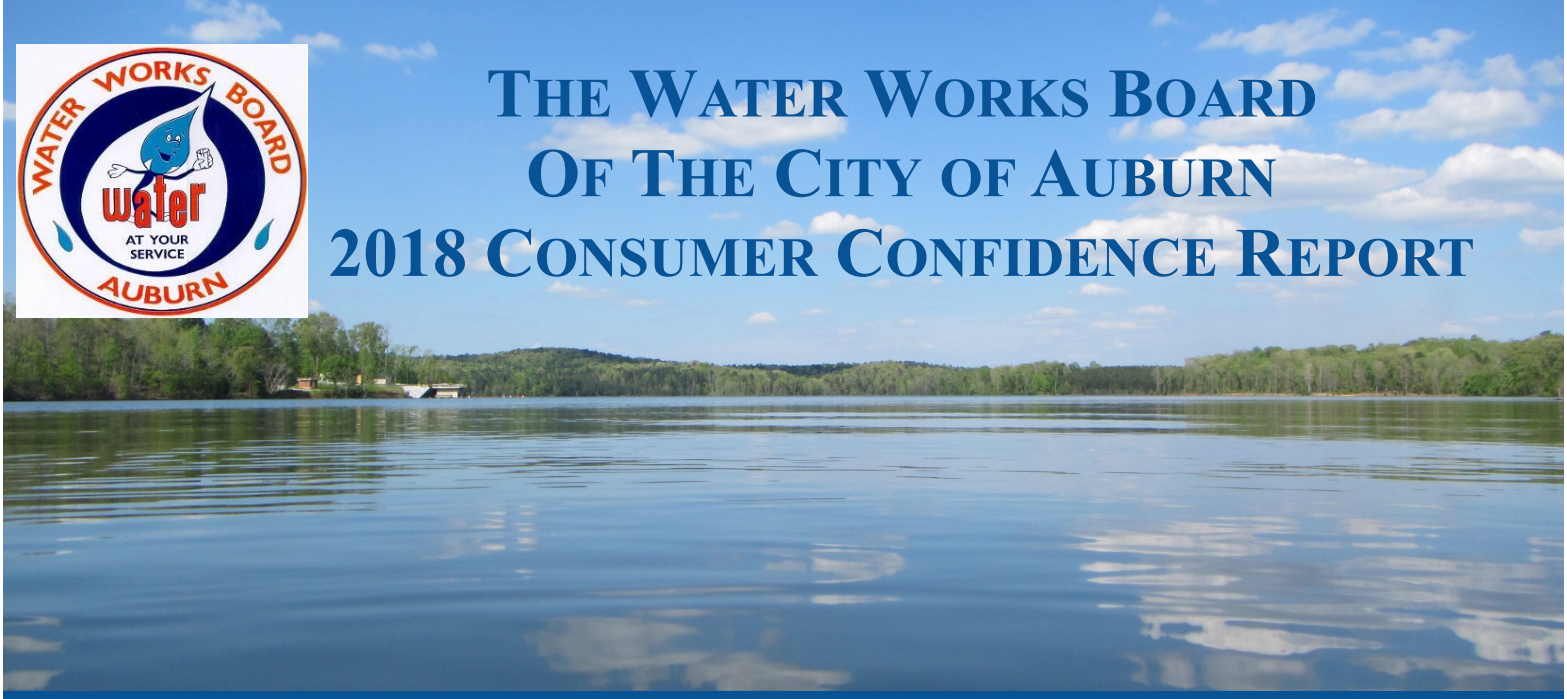

The Water Works Board Of The City of Auburn 2018 Consumer Confidence Report

OUR WATER RESOURCES

The Water Works Board of the City of Auburn (AWWB) is proud to present its 2018 Consumer Confidence Report (CCR). In compliance with Federal and State laws, the AWWB routinely monitors for numerous constituents in the drinking water. The tables in this report illustrate the results of water quality monitoring for the calendar year 2018. This is the 22nd 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, which is located southeast of Auburn. Lake Ogletree (pictured above) is approximately 300 acres and is fed primarily by Chewacla Creek and Nash Creek. The total watershed area contributing to the lake is approximately 33 square miles. In 2018, water from Lake Ogletree was utilized to produce approximately 63% of AWWB's drinking water. In an effort to meet increasing demand and to improve resiliency in its source waters, the AWWB constructed a groundwater well south of Interstate 85 in 2012. A Source Water Assessment was conducted for the well's source water protection area, and concluded that the well has a low susceptibility to contamination. This well contributed approximately 16% of AWWB's drinking water during 2018. 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 primarily to supplement growing-season peak demands. Water purchased from Opelika Utilities accounted for approximately 21% of AWWB's drinking water in 2018.

Most contaminants originate from surface runoff associated with natural deposits, automobiles, industry, construction, and animals. 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 regulating development density within its jurisdiction, and working with property owners to encourage good on-site methods to manage pollutant runoff. Information on 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: 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 2018, 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	ND
Radium 228	5 pCi/L	ND
Turbidity	**MCL**	**Highest Detected Level**
Turbidity	TT (NTU)	0.18
Inorganic Chemicals	**MCL**	**Highest Detected Level**
Antimony	6 ppb	0.42
Arsenic	10 ppb	ND
Barium	2 ppm	0.0248
Beryllium	4 ppb	ND
Cadmium	5 ppb	ND
Chlorine	4 ppm MRDL	1.38****
Chromium	100 ppb	ND
Copper	AL = 1.3 ppm	0.175***
Cyanide	200 ppb	ND
Fluoride	4 ppm	1.5
Lead	AL = 15 ppb	1.2 *** †
Mercury	2 ppb	ND
Nitrate	10 ppm	0.561
Nitrite	1 ppm	ND
Selenium	50 ppb	0.25 †
Thallium	2 ppb	ND
Disinfection By-products	**MCL**	**Highest Detected Level**
Total Trihalomethanes (TTHMs)	80 ppb	80.9 ** †
Haloacetic acids (HAA5)	60 ppb	46.6**
Chlorite	1 ppm	0.617 †
Organic Chemicals	**MCL**	**Highest Detected Level**
Total Organic Carbon	TT (ppm)	1.78*****

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

*** 90th percentile of samples collected

**** 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.

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	2.16
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

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	ND
Dichloromethane	5 ppb	ND

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.

Turbidity	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Date	Likely Sources
Turbidity	NTU	TT	N/A	0.18	0.02 - 0.18	Daily	Soil runoff
Inorganic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Antimony	ppb	6	6	0.42	Single Sample	4/18/2018	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium	ppm	2	2	0.0248	Single Sample	4/18/2018	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine	ppm	MRDL = 4	MRDLG = 4	1.38****	1.09 - 2.65	Daily	Water additive used to control microbes
Copper	ppm	AL = 1.3	1.3	0.175***	Zero sites above action level	Jun. - Aug. 2016	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride	ppm	4	4	1.5	0.16 - 1.5	Daily	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	ppb	AL = 15	0	1.2*** †	Zero sites above action level	Jun. - Sep. 2016	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	ppm	10	10	0.561	0.521 - 0.561	1/25, 4/18, 10/23/2018	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	ppb	50	50	0.25 †	ND - 0.25	4/18/2018	Discharge from petroleum refineries; Discharge from mines; Erosion of natural deposits
Synthetic Organic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Di(2-Ethylhexl)Phthalate	ppb	6	0	2.16	Single Sample	3/14/2018	Discharge from rubber and chemical factories
Disinfection By-products	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Total Trihalomethanes (TTHMs)	ppb	80	N/A	80.9** †	42.4 - 80.9	Quarterly	By-product of drinking water disinfection
Haloacetic acids (HAA5)	ppb	60	N/A	46.6**	27.0 - 46.6	Quarterly	By-product of drinking water disinfection
Chlorite	ppm	1	0.8	0.617 †	ND - 0.782	Monthly	By-product of drinking water disinfection
Unregulated Contaminant Monitoring Rule-3	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Chlorate	ppb	N/A	N/A	100	Single Sample	1/7/2014	Agricultural defoliant or desiccant; By-product of drinking water disinfection
Hexavalent Chromium	ppb	N/A	N/A	0.075	Single Sample	1/7/2014	Naturally-occurring element; used in making steel and other alloys
Strontium	ppb	N/A	N/A	21	Single Sample	1/7/2014	Naturally-occurring element
Vanadium	ppb	N/A	N/A	0.26	Single Sample	1/7/2014	Naturally-occurring elemental metal
Unregulated Contaminant Monitoring Rule-4	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Manganese	ppb	N/A	N/A	9.99 †	0.658 - 9.99	11/14/2018	Erosion from natural deposits; Runoff from landfills
Bromochloroacetic acid	ppb	N/A	N/A	5.93 †	3.93 - 5.93	11/14/2018	By-product of drinking water disinfection
Bromodichloroacetic acid	ppb	N/A	N/A	5.01 †	4.3 - 5.01	11/14/2018	By-product of drinking water disinfection
Chlorodibromoacetic acid	ppb	N/A	N/A	0.773 †	0.589 - 0.773	11/14/2018	By-product of drinking water disinfection
Dibromoacetic acid	ppb	N/A	N/A	0.606 †	0.606 - 0.428	11/14/2018	By-product of drinking water disinfection
Dichloroacetic acid	ppb	N/A	N/A	37.6 †	20.9 - 37.6	11/14/2018	By-product of drinking water disinfection
Monobromoacetic acid	ppb	N/A	N/A	0.357 †	ND - 0.357	11/14/2018	By-product of drinking water disinfection
Monochloroacetic acid	ppb	N/A	N/A	4.87 †	4.87 - 2.12	11/14/2018	By-product of drinking water disinfection
Trichloroacetic acid	ppb	N/A	N/A	32.8 †	27.7 - 32.8	11/14/2018	By-product of drinking water disinfection

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 2016 in accordance with applicable regulations.

Unregulated Contaminant Monitoring Rule - 4: Results are from Opelika Utilities. No samples were collected in 2018 in the Auburn Water Works Board (AWWB) distribution system. Samples are scheduled to be collected by AWWB in 2019 and 2020 in accordance with applicable regulations.

† Amount detected in water purchased from Opelika Utilities before entering the AWWB distribution system.

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 Date	Likely Sources
Chloride	ppm	250	N/A	10.5	Single Sample	4/18/2018	By-product of drinking water disinfection
Iron	ppb	300	N/A	20	ND - 20	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	8.23 †	7.82 - 8.23 †	4/18/2018	Erosion of natural deposits
Total Dissolved Solids (TDS)	ppm	500	N/A	21 †	2 - 21 †	4/18/2018	Erosion of natural deposits
Zinc	ppm	5	N/A	0.253	Single Sample	4/18/2018	Corrosion inhibitor
pH	standard units	6.5-8.5	N/A	7.26*	6.90 - 7.80	Daily	Natural deposits; treatment at water plant
Color	ADMI CU	15	N/A	6	Single Sample	4/18/2018	Natural deposits; treatment at water plant
Unregulated Inorganic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level or Annual Average (*)**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Calcium	ppm	N/A	N/A	23.4	10.2 - 23.4	4/18/2018, 10/24/2018	Natural deposits; treatment at water plant
Specific Conductance	µS/cm	N/A	N/A	152 †	115 - 152 †	4/18/2018	Natural deposits
Carbon Dioxide	ppm	N/A	N/A	22.1*	5 - 58	Daily	Natural deposits
Magnesium	ppm	N/A	N/A	2.83	Single Sample	4/18/2018	Natural deposits
Sodium	ppm	N/A	N/A	21 †	5.85 - 21 †	4/18/2018	Natural deposits
Alkalinity	ppm	N/A	N/A	36.5*	29 - 48	Daily	Natural deposits
Total Hardness	ppm	N/A	N/A	38.7	Single Sample	4/18/2018	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	1.78*****	1.51 - 1.78	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 63,973 (2017 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.

THE NEW SPILLWAY AT LAKE OGLETREE

Lake Ogletree is the City of Auburn's primary drinking water source and was created in the early 1940's when the original dam and spillway were constructed on Chewacla Creek. The original spillway was over 75 years old and was in need of replacement. Construction of a new spillway began in late 2015. The new spillway is a 4-stage labyrinth weir with a total length of approximately 1,580 feet. The new spillway adds approximately 50 million gallons of storage capacity to Lake Ogletree. Construction was completed in the fall of 2017, and is another example of the AWWB's commitment to ensure the City of Auburn is supplied with safe, reliable drinking water.

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.