The Water Works Board Of The City of Auburn 2014 Consumer Confidence Report

OUR WATER RESOURCES

The Water Works Board of the City of Auburn (AWWB) is proud to present its 2014 Consumer Confidence Report (CCR). In compliance with Federal and State laws, the AWWB routinely monitors for numerous constituents in the drinking water. We are pleased to report that our drinking water is safe and meets all Federal and State requirements. The tables in this report illustrate the results of water quality monitoring for the calendar year 2014. This is the eighteenth 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 in southeast Auburn. Lake Ogletree (pictured above) is approximately 300 acres and is fed primarily by Chewacla Creek. The total watershed feeding the Lake encompasses approximately 33 square miles. In 2014, water from Lake Ogletree was utilized to produce approximately 59% of AWWB's drinking water. In an effort to meet increasing demands and to improve resiliency in its source waters, the AWWB constructed a groundwater well south of Interstate 85 in 2012. Prior to bringing this well online, the AWWB contracted for a Source Water Assessment of the well's source water protection area, which concluded that the well has a low susceptibility to contamination. This well contributed approximately 18% of AWWB's drinking water during 2014. 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 23% of AWWB's drinking water in 2014. Monitoring of all surface source waters is conducted year-round for *Cryptosporidium* (*Crypto*), *Giardia lamblia* (*Giardia*), nutrients, and numerous other water quality parameters. 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. 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. Please call (334) 501-3060 for more information.

Above: Chewacla Creek at the forebay of Lake Ogletree.

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 any primary contaminants detected in 2014.

Bacteriological	MCL	Highest Detected Level
Total Coliform Bacteria	< 5%	ND
Radiological	**MCL**	**Highest Detected Level**
Gross Alpha	15 pCi/L	ND
Radium 228	5 pCi/L	1.1
Turbidity	**MCL**	**Highest Detected Level**
Turbidity	TT (NTU)	0.27
Inorganic Chemicals	**MCL**	**Highest Detected Level**
Antimony	6 ppb	ND
Arsenic	10 ppb	ND
Barium	2 ppm	0.03
Beryllium	4 ppb	ND
Cadmium	5 ppb	ND
Chlorine	4 ppm MRDL	1.62****
Chromium	100 ppb	ND
Copper	AL = 1.3 ppm	0.096***
Cyanide	200 ppb	ND
Fluoride	4 ppm	0.96
Lead	AL = 15 ppb	ND***
Mercury	2 ppb	ND
Nitrate	10 ppm	0.63
Nitrite	1 ppm	ND
Selenium	50 ppb	ND
Thallium	2 ppb	ND
Disinfection By-products	**MCL**	**Highest Detected Level**
Total Trihalomethanes	80 ppb	80.7** **(MCL Violation)**
Haloacetic acids (HAA5)	60 ppb	46.8**
Organic Chemicals	**MCL**	**Highest Detected Level**
Total Organic Carbon	TT (ppm)	1.94*****

Synthetic Organic Chemicals	MCL	Highest Detected Level
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
DBCP (1,2 Dibromo-3-	200 ppt	ND
Di(2-Ethylhexl)Adipate	400 ppb	ND
Di(2-Ethylhexl)Phthalate	6 ppb	0.64
Dinoseb	7 ppb	ND
Diquat	20 ppb	ND
Endothall	100 ppb	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
PCB (Polychlorinated Biphenyls)	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 Level
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

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

- **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 any of these contaminants was not required.
- **Copper and Lead** results are from the most recent testing done in 2013 in accordance with applicable regulations.

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.

Radiological	Units	MCL	MCLG	Highest Detected Level	Range of Detected Levels	Test Date	Likely Sources
Radium 228	pCi/L	5	0	1.1	ND - 1.1	3/4/2014	Erosion of natural deposits
Turbidity	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Turbidity	NTU	TT	N/A	0.27	0.00 - 0.27	Daily	Soil runoff
Inorganic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Barium	ppm	2	2	0.03	Single Sample	5/6/2014	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine	ppm	MRDL = 4	MRDLG = 4	1.62****	1.2 - 1.9	Daily	Water additive used to control microbes
Copper	ppm	AL = 1.3	1.3	0.096***	Zero sites above action level	Jul.-Aug. 2013	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride	ppm	4	4	0.96	0.10 - 0.96	Daily	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	ppm	10	10	0.63	0.09 - 0.63	3/4/2014	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Disinfection By-products	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Total Trihalomethanes (TTHMs)	ppb	80	N/A	80.7** **(MCL Violation)**	4.5 - 80.7	Quarterly	By-product of drinking water disinfection
Haloacetic acids (HAA5)	ppb	60	N/A	46.8**	2.5 - 46.8	Quarterly	By-product of drinking water disinfection
Synthetic Organic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Di(2-Ethylhexl)Phthalate	ppb	6	0	0.64	ND - 0.64	3/11/2014	Discharge from rubber and chemical factories

NOTICE OF MCL VIOLATION

Federal regulations set certain limits, known as the maximum contaminant levels (MCL) on contaminants that can be found in the potable water supply. Our water system exceeded the limit set for a certain contaminant known as total trihalomethanes (TTHMs). As our customer, you have a right to know this limit was exceeded, and a public notice was sent to customers in March 2014. The AWWB routinely monitors for the presence of drinking water contaminants throughout its distribution system. Testing results received in early March 2014 for samples that were collected in February 2014 resulted in our system exceeding the MCL standard for total trihalomethanes at our test site located at 2579 Bent Creek Road. The MCL standard for total trihalomethanes is 0.080 mg/L. The regulation states that if a water system's four quarter average exceeds 0.080 mg/L at any monitoring location, it is considered above the federal drinking water standards. The four quarter average for total trihalomethanes at this location was 0.0807 mg/L. This does not pose an immediate risk, and the four quarter average is now below the MCL. However, studies have indicated that some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. If you have specific health concerns, you should consult with your physician. The AWWB is committed to providing the highest quality water possible and we want to assure our customers that we are continually monitoring and operating our system in a manner to provide safe, reliable drinking water. Please be assured that we will continue to manage and make improvements to the water system in an effort to control contaminants and improve water quality within the distribution system.

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 *http://www.epa.gov/safewater/lead*.

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	Range of Detected Levels	Test Date	Likely Sources
Chloride	ppm	250	N/A	2.5	Single Sample	5/6/2014	By-product of drinking water disinfection
Color	units	15	N/A	6	0 - 6	Daily	Erosion of natural deposits
Manganese	ppb	50	N/A	20	ND - 20	Daily	Erosion of natural deposits; Runoff from landfills
Sulphate	ppm	250	N/A	16.1	Single Sample	5/6/2014	Erosion of natural deposits
Total Dissolved Solids (TDS)	ppm	500	N/A	79	Single Sample	5/6/2014	Erosion of natural deposits
Zinc	ppm	5	N/A	0.15	Single Sample	5/6/2014	Corrosion inhibitor
pH	standard units	6.5-8.5	N/A	7.36*	6.8 - 7.9	Daily	Natural deposits
Unregulated Inorganic Chemicals	**Units**	**MCL**	**MCLG**	**Highest Detected Level**	**Range of Detected Levels**	**Test Date**	**Likely Sources**
Calcium	ppm	N/A	N/A	11.7 ppm	Single Sample	5/6/2014	Natural deposits; treatment at water
Specific Conductance	µS/cm	N/A	N/A	125	Single Sample	5/6/2014	Natural deposits
Carbon Dioxide	ppm	N/A	N/A	9.41 ppm*	0 - 24	Daily	Natural deposits
Magnesium	ppm	N/A	N/A	3.05 ppm	Single Sample	5/6/2014	Natural deposits
Sodium	ppm	N/A	N/A	4.98 ppm	Single Sample	5/6/2014	Natural deposits
Alkalinity	ppm	N/A	N/A	50 ppm*	29 - 69	Daily	Natural deposits
Total Hardness	ppm	N/A	N/A	40 ppm	Single Sample	5/6/2014	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	1.94*****	1.48 - 1.94	Monthly	Naturally present in the environment
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 ppb	Single Sample	1/7/2014	Agricultural defoliant or desiccant; By-product of drinking water disinfection
Hexavalent Chromium	ppb	N/A	N/A	0.075 ppb	Single Sample	1/7/2014	Naturally-occurring element; used in making steel and other alloys
Strontium	ppb	N/A	N/A	21 ppb	Single Sample	1/7/2014	Naturally-occurring element
Vanadium	ppb	N/A	N/A	0.26 ppb	Single Sample	1/7/2014	Naturally-occurring elemental metal

AWWB NEWS AND PUBLIC INFORMATION

The AWWB continuously strives to provide the highest quality water services for the City's ever-increasing population of 58,582 (2013 U.S. Census Estimate). As part of a multi-year capital improvement and modernization effort, the AWWB has engaged in several major improvement projects over the past several years. The first of these was the construction of Well No. 3 in 2012, which provided a new, high quality drinking water source for the City. Two projects that began in 2013 are now complete including the construction of a new clearwell, and a new raw water pump station at Lake Ogletree. These improvements will help the AWWB sustain a high level of service and quality to its customers for years to come. The AWWB wishes to remind its customers that, although significant facility improvements and augmentation of supply have been achieved, citizens are still encouraged to use our water resources wisely and to take measures to conserve water when and where possible. The Water Resource Management Department provides helpful information about water conservation and tips on how to conserve water resources through its website at *http://www.auburnalabama.org/waterconservation*.

The AWWB has taken proactive steps to ensure that the quality and quantity of water delivered to its customers is reliable and will be for many years to come. For more than 25 years, the AWWB has funded numerous studies on Lake Ogletree and its surrounding watershed. One of the most important of these studies is the voluntary Source Water Monitoring Program. The study includes monitoring within Lake Ogletree and its contributing watershed for numerous physical, chemical, bacteriological and mineral water quality parameters. The program allows for the advanced knowledge of potential changes within the watershed and allows for progressive management decisions within the watershed. These studies are an integral part of the ongoing effort and responsibility of the AWWB to ensure the delivery of safe and clean water.

The AWWB encourages the public to participate in the monthly Board meetings. Board meetings are typically held monthly at 4:00 P.M. on the Thursday following the third Tuesday of each month in the AWWB Conference Room of the Bailey-Alexander Complex located at 1501 W. Samford Avenue. The Water Board members are Jeff Clary, Ed.D. (Chair), Butch Brock (Vice Chairman), Jennifer Chambliss, Esq. (Secretary), David Mines (Member), and Brad Wilson (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 Water Revenue Office at (334) 501-3050. For additional information, please visit us online at *www.auburnalabama.org/wrm*.

THE NEW RAW WATER PUMP STATION AT LAKE OGLETREE

In November of 2014 the AWWB dedicated the new raw water pump station at Lake Ogletree, Auburn's primary water supply. The new pump station replaced two older pump stations previously in use at Lake Ogletree. Pump Station #1 was originally constructed in 1953 with 3 raw water pumps and a capacity of 5 million gallons per day (MGD). Pump Station #2 was constructed in 1969 and included 2 raw water pumps with a capacity of 7 MGD. The new pump station has three pumps, with a capacity of 9.5 MGD. It is built to accommodate the addition of a 4th pump if more capacity becomes needed. The new pump station is the latest project representing the AWWB's commitment to maintaining and improving the City's water supply infrastructure to ensure that it is efficient, reliable and ready to meet the City's current and future water needs.

The new raw water pump station during construction, Fall 2014.

Dedication ceremony of the new raw water pump station, November 2014.

WATER TREATMENT PROCESS

Water is pumped from Lake Ogletree to the James Estes Water Treatment Plant. At the plant, a staff of 7 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. This diagram was prepared to help you better understand where your drinking water comes from and how this water is treated before being distributed to homes in our community.