

# THE WATER WORKS BOARD OF THE CITY OF AUBURN 2013 CONSUMER CONFIDENCE REPORT

## OUR WATER RESOURCES

The Water Works Board of the City of Auburn (AWWB) is proud to present its 2013 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 2013. This is the seventeenth 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 2013, water from Lake Ogletree was utilized to produce approximately 58% 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 6% of AWWB's drinking water during 2012 and 18% during 2013. 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 24% of AWWB's drinking water in 2013. 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. This table provides a quick glance of any primary contaminant detections.

Parts Per Million (mg/L) unless indicated otherwise

CONTAMINANT	MCL (mg/L)	AMOUNT DETECTED (mg/L)	COMPLIANCE VALUE	CONTAMINANT	MCL (mg/L)	AMOUNT DETECTED (mg/L)	COMPLIANCE VALUE
<b>Bacteriological</b>				Chlordane	0.002	ND	Annual MAX
Total Coliform Bacteria	< 5%	ND	% Positive	Chlorine	4	1.41	RA Average
Turbidity	TT	0.23 NTU	Annual MAX	Chlorine dioxide	0.8	ND	Annual MAX
<b>Radiological</b>				Chlorite	1	ND	Annual MAX
Beta/photon emitters	4 mrem/yr	ND	Annual AVG	Chlorobenzene	0.1	ND	Annual MAX
Alpha emitters	15 pCi/L	- 0.75 pCi/L	Annual AVG	Cis-1,2-Dichloroethylene	0.07	ND	Annual MAX
Combined radium	5 pCi/L	ND	Annual AVG	Dalapon	0.2	ND	Annual MAX
<b>Inorganic</b>				Di-(2-ethylhexyl)adipate	0.4	ND	Annual MAX
Antimony	0.006	ND	Annual MAX	Di(2-ethylhexyl)phthalates	0.006	ND	Annual MAX
Arsenic	0.01	ND	Annual MAX	Dibromochloropropane	0.0002	ND	Annual MAX
Asbestos	7 MFL	ND	Annual MAX	Dichloromethane	0.005	ND	Annual MAX
Barium	2	0.0247	Annual MAX	Dinoseb	0.007	ND	Annual MAX
Beryllium	0.004	ND	Annual MAX	Dioxin[2,3,7,8-TCDD]	3E-08	ND	Annual MAX
Cadmium	0.005	ND	Annual MAX	Diquat	0.02	ND	Annual MAX
Chromium	0.1	ND	Annual MAX	Endothall	0.1	ND	Annual MAX
Copper	AL=1.3	0.279	90th Percentile	Endrin	0.002	ND	Annual MAX
Cyanide	0.2	ND	Annual MAX	Epichlorohydrin	TT	ND	Annual MAX
Fluoride	4	1.20	Annual MAX	Ethylbenzene	0.7	ND	Annual MAX
Lead	AL=0.015	0.004	90th Percentile	Ethylene dibromide	0.00005	ND	Annual MAX
Mercury	0.002	ND	Annual MAX	Glyphosate	0.7	ND	Annual MAX
Nickel	0.1	ND	Annual MAX	HAA5	*60	*45.90	LRA MAX
Nitrate	10	0.141	Annual MAX	Heptachlor	0.0004	ND	Annual MAX
Nitrite	1	0.01	Annual MAX	Heptachlor epoxide	0.0002	ND	Annual MAX
Selenium	0.05	ND	Annual MAX	Hexachlorobenzene	0.001	ND	Annual MAX
Thallium	0.002	ND	Annual MAX	Hexachloropentadiene	0.05	ND	Annual MAX
<b>Organic Chemicals</b>				Lindane	0.0002	ND	Annual MAX
2,4-D	0.07	ND	Annual MAX	Methoxychlor	0.04	ND	Annual MAX
0-Dichlorobenzene	0.6	ND	Annual MAX	Oxamyl [Vydate]	0.2	ND	Annual MAX
1,1,1-Trichloroethane	0.2	ND	Annual MAX	PCBs	0.0005	ND	Annual MAX
1,1,2-Trichloroethane	0.005	ND	Annual MAX	p-Dichlorobenzene	0.075	ND	Annual MAX
1,1-Dichloroethylene	0.007	ND	Annual MAX	Pentachlorophenol	0.001	ND	Annual MAX
1,2,4-Trichlorobenzene	0.07	ND	Annual MAX	Picloram	0.5	ND	Annual MAX
1,2-Dichloroethane	0.005	ND	Annual MAX	Simazine	0.004	ND	Annual MAX
1,2-Dichloropropane	0.005	ND	Annual MAX	Styrene	0.1	ND	Annual MAX
2,4,5-TP (Silvex)	0.05	ND	Annual MAX	Tetrachloroethylene	0.005	ND	Annual MAX
Acrylamide	TT	ND	Annual MAX	TOC	TT	1.44	RA Average
Alachlor	0.002	ND	Annual MAX	Toluene	1	ND	Annual MAX
Atrazine	0.003	ND	Annual MAX	Toxaphene	0.003	ND	Annual MAX
Benzene	0.005	ND	Annual MAX	trans-1,2-Dichloroethylene	0.1	ND	Annual MAX
Benzo(a)pyrene[PHAs]	0.0002	ND	Annual MAX	Trichloroethylene	0.005	ND	Annual MAX
Bromate	0.01	ND	Annual MAX	TTHM	*80	*77.70	LRA MAX
Carbofuran	0.04	ND	Annual MAX	Vinyl Chloride	0.002	ND	Annual MAX
Carbon Tetrachloride	0.005	ND	Annual MAX	Xylenes	10	ND	Annual MAX
Chloramines	4	ND	Annual MAX	* Parts Per Billion (ug/L)			



## PRIMARY DETECTED CONTAMINANTS

CONTAMINANT	MCLG	MCL	Range			Amount Detected		Test Date	Likely Source of Contamination
<b>Bacteriological</b>									
Turbidity	0	TT	0	-	0.23	0.23	NTU	Hourly	Soil runoff
<b>Radiological</b>									
Alpha emitters	0	15	0	-	- 0.75	- 0.75	pCi/L	4/19/2005	Erosion of natural deposits
<b>Inorganic Chemicals</b>									
Barium	2	2	ND	-	0.0247	0.0247	ppm	4/6/2012	Discharge of drilling waste/metal refineries. Natural deposits.
Copper	1.3	AL=1.3	No. of Sites above action level 0			0.279	ppm	Jul-Aug. 2013	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	4	4	ND	-	1.20	1.20	ppm	Daily	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	0	AL=0.015	No. of Sites above action level 0			0.004	ppm	Jul-Aug. 2013	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate	10	10	ND	-	0.141	0.141	ppm	4/19/2012	Runoff from fertilizer, leaking from septic tanks, sewage, and/or erosion of natural deposits
Nitrite	1	1	ND	-	0.01	0.01	ppm	4/6/2012	Runoff from fertilizer, leaking from septic tanks, sewage, and/or erosion of natural deposits
<b>Organic Chemicals</b>									
Chlorine	4 MRDLG	4 MRDL	1.19	-	1.73	*1.41	ppm	Daily	Microbial disinfectant
TTHM	0	80	ND	-	117.00	*77.70	ppb	Quarterly	By-product of drinking water chlorination
HAA5	0	60	2.20	-	58.80	*45.90	ppb	Quarterly	By-product of drinking water chlorination
TOC	-	TT	1.09	-	2.22	*1.44	ppm	Monthly	Naturally present in the environment

## OTHER DETECTED CONSTITUENTS/CONTAMINANTS

CONTAMINANT	MCLG	MCL	Range			Amount Detected		Test Date	Likely Source of Contamination
Alkalinity	-	-	20.00	-	68.00	68.00	ppm	Daily	Natural deposits
Aluminum	-	0.2	ND	-	0.076	0.076	ppm	4/6/2012	Natural deposits
Bromodichloromethane	0	-	ND	-	7.17	*2.49	ppb	Quarterly	By-product of drinking water chlorination
Bromoform	0	-	ND	-	1.11	*1.11	ppm	Quarterly	By-product of drinking water chlorination
Calcium	-	-	ND	-	17.24	17.24	ppm	4/6/2012	Natural deposits, lime fed at water plant
Carbon Dioxide	-	-	1.00	-	30.00	30.00	ppm	Daily	Natural deposits
Chloride	250	250	ND	-	17.00	17.00	ppm	4/6/2012	By-product of drinking water chlorination
Chloroform	70	-	1.60	-	94.20	*48.39	ppb	Quarterly	By-product of drinking water chlorination
Color	-	15	ND	-	9.00	9.00	cu	Daily	Natural deposits
Dichloroacetic Acid	0	-	0.60	-	14.28	*14.28	ppb	Quarterly	By-product of drinking water chlorination
Dibromoacetic Acid	-	-	ND	-	1.16	*0.80	ppb	Quarterly	By-product of drinking water chlorination
Dibromochloromethane	60	-	ND	-	7.17	*2.49	ppb	Quarterly	By-product of drinking water chlorination
Hardness	-	-	ND	-	62.40	62.40	ppm	4/6/2012	Natural deposits
Iron	0.3	-	ND	-	0.15	0.15	ppm	Daily	Natural deposits
Magnesium	-	-	ND	-	5.64	5.64	ppm	4/6/2012	Natural deposits
Manganese	0.05	-	ND	-	0.03	0.03	ppm	Daily	Natural deposits
Monobromoacetic Acid	-	-	ND	-	1.38	*0.96	ppm	Quarterly	By-product of drinking water chlorination
Monochloroacetic Acid	70	-	ND	-	4.84	*2.53	ppb	Quarterly	By-product of drinking water chlorination
pH	-	-	7.00	-	7.90	**7.37	su	Hourly	Natural deposits
Sodium	-	-	ND	-	5.47	5.47	ppm	4/6/2012	Natural deposits
Specific Conductivity	-	-	169	-	169	169	µS/cm	4/6/2012	Natural deposits
Sulfate	250	-	ND	-	33.34	33.34	ppm	4/6/2012	Treatment by-product at water plant
Total Dissolved Solids (TDS)	-	500	ND	-	ND	ND	ppm	4/6/2012	Natural deposits
Trichloroacetic Acid	20	-	1.03	-	34.50	*19.43	ppb	Quarterly	By-product of drinking water chlorination
Zinc	5	-	ND	-	0.241	0.241	ppm	4/6/2012	Corrosion inhibitor

### Definitions/Key:

- AL – Action Level (The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.)
  - MCLG- Maximum Contaminant Level Goal (The level of a contaminant in drinking water below which there is no known or expected risk to human 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.)
  - cu – color units (measure of the apparent color)
  - ND – Not Detected (Indicates that the compound was not detected above the Lab's Method Reporting Limit.)
  - NTU – Nephelometric Turbidity Units (Measure of suspended particles such as silt, clay, organic matter, algae and other microorganisms)
  - ppm – parts per million (i.e. 1 ppm compares to 1 dollar out of 1 million dollars)
  - ppb – parts per billion (i.e. 1 ppb compares to 1 dollar out of 1 billion dollars)
  - pCi/l – picocuries per liter (A measure of radioactivity)
  - su – standard units (dimensionless unit used to measure pH)
  - TT – Treatment Technique (A required process intended to reduce the level of a contaminant in drinking water.)
  - µS/cm – microsiemens per centimeter (A measure of electrical conductivity)
  - \* – Locational Running Annual Average Used to Determine Compliance Value \*\* – Annual Average Used to Determine Compliance Value
- 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.*

## RESULT SUMMARY

The Water Works Board of the City of Auburn (AWWB) is pleased to report that none of the samples collected from the James Estes Water Treatment Facility, Well No. 3, or from the distribution system during the 2013 monitoring year exceeded a primary or secondary contaminant maximum contaminant level (MCL). Additionally, no MCL was exceeded for any contaminant from those portions of the AWWB distribution system receiving water from Opelika Utilities.

In accordance with ADEM Administrative Code 335-7-11 (Lead and Copper Rule), the AWWB was required to monitor for the presence of Lead and Copper in the drinking water during the 2013 monitoring year. Monitoring for Lead and Copper is required every three years, and was last performed in 2010. The results of the 2013 monitoring did not indicate any violations of water quality standards under the Lead and Copper Rule. A summary of the results from the 2013 Lead and Copper monitoring are published in this report. The AWWB also conducted monitoring associated with the Unregulated Contaminant Monitoring Program 2 (UCMR2) during the 2010 monitoring year. No contaminants associated with the UCMR2 analyses were detected. For more information on the UCMR2 program please go to <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr2/>.

## CRYPTOSPORIDIUM AND GIARDIA LAMBLIA

*Cryptosporidium* (*Crypto*) and *Giardia lamblia* (*Giardia*) are protozoan parasites and are two of the most common microbiological contaminants found in surface water. Ingestion of these parasites can cause severe diarrhea, fever and other gastrointestinal problems. All surface water supplies throughout the country, especially in watersheds with large animal populations, are at risk for contamination. *Crypto* and *Giardia* are eliminated at the water treatment plant through effective sedimentation, filtration and disinfection. Since 1990, the AWWB has routinely tested for *Crypto* and *Giardia*. Although both have been detected in raw water samples in the past, neither organism has ever been detected in AWWB's treated water.

## IMPORTANT HEALTH INFORMATION

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 lesson the risk of infection by *Crypto* and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

## AWWB NEWS AND PUBLIC INFORMATION

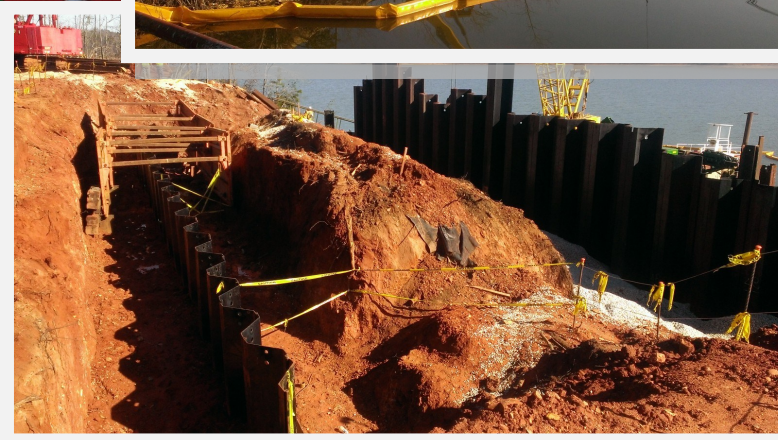
The AWWB continuously strives to provide the highest quality water services for the City's ever-increasing population of 56,908 (2012 US Census Estimate). As part of a multi-year capital improvement and modernization effort, the AWWB has engaged in several major improvement projects over the past two 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 additional projects that began in 2013 include the construction of a new clear well and the beginning of construction for 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, biannual 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](http://www.auburnalabama.org/wrm).



# New Raw Water Pump Station



**Auburn Water Works Board Begins Construction of New Raw Water Pump Station:**

As part of its ongoing efforts to continue delivering high quality service to its customers, the Auburn Water Works Board is constructing a new raw water pump station on Lake Ogletree. The new pump station will have a pumping capacity of 8.5 million-gallons-per-day (MGD) and will greatly improve the efficiency of raw water delivery to the James Estes Water Treatment Plant. This project was awarded for construction in May of 2013 and is scheduled for completion in 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.

