2015 Annual Water Quality Report

City of Greensboro (System ID# 1330000)

The City of Greensboro Water Department is pleased to provide you with this year's **2015 Annual Quality Water Report (AQWR)**. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide to you with a safe and dependable supply of drinking water. Lake Oconee is our source of drinking water, which is treated at the City of Greensboro Water Treatment Facility located on Highway 278 East just west of town. Lake Oconee is the 2nd largest lake in the state of Georgia and is excellent raw source of drinking water.

We are pleased to report that our drinking water is very safe and meets all Federal and State Regulatory requirements.

Individual **Annual Quality Report (AQWR)** Reports will not be mailed out; however, if you would like to have a copy of this report, it is available at the Greensboro City Hall. If you have any other questions concerning your water utility, please contact **Lamar Callaway Surface Water Plant Manager at (706) 453-2782**. We want our valued customers to be informed about their Water Utility. If you wish to learn more, or participate in discussions, please attend one of our regularly scheduled meetings. Meetings are held on the **1st and 3rd Monday of each month at 6:00 PM at the Greensboro City Hall, 212 North Main Street.**

Source Water Assessment Program (SWAP)

Source Water Assessment and Information on Potential Watershed Contaminants:

Georgia's Source Water Assessment Program (SWAP) is aimed at protecting public water supplies at their source. The City of Greensboro's source for drinking water is Lake Oconee. SWAP intends to identify potential sources of pollution within a drinking water supply watershed (all the land that drains to a particular drinking water intake) and access the overall susceptibility of the water supply based on sources identified upstream. Possible sources are urban and agricultural run off, accidental spills from and releases from businesses, direct discharge to waterways, etc. During the six- month sampling program from July 2001 to December 2001, **NO** Giardia or Cryptosporidium oocyst were found in the City of Greensboro's raw water source intake at Lake Oconee. The overall susceptibility score for the City of Greensboro raw water source supply intake was **Medium**. The assessment identified a total of 116 potential points and non-potential points pollutant sources within the 1,075 square mile water supply watershed. Based on the analysis it was determined that the highest priority pollutant sources in the watershed are:

- Agricultural waste lagoons
- Septic areas
- Wastewater treatment plants
- Wastewater treatment for mobile home parks and other facilities
- Railroad and road crossings

To obtain a complete copy of any of the SWAP reports from this project please contact Joe Tichy. He can be contacted at the Northeast Georgia Regional Development Center (706) 369-5650 or at the project website: www.negrdc.org.

Educational Information

Explanation of Contaminants and Health Risks Found in Drinking Water:

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some constituents. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained at the **Environmental Protection Agency's Safe Drinking Water Hotline: 1-800-426-4791.**

Explanation of the Vulnerability of Some Population to Contaminants:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lesson the risk of infection by Cryptosporidium and microbiological contaminants are available at the **Environmental Protection Agency's Safe Drinking Water Hotline: 1-800-426-4791**

Explanation of Lead in Drinking Water

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 City of Greensboro Water System 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**

Explanation of Drinking Water Source Contaminants:

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substance resulting from the presence of animals or human activity.

Contaminants that may be presence in source water include the following:

1. Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

2. Inorganic contaminants, such as salts or metals, which can be naturally occurring or resulting from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

3. Pesticides and herbicides, which may from a variety of sources such as agriculture, urban storm runoff, and residential uses.

4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban storm water runoff, and septic systems.

5. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

HOW TO READ THE REPORT			
WORD NOTE OR SYMBOL	DEFINITION	WORD NOTE OR SYMBOL	DEFINITION
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	**(a)**	Water from the treatment plant does not contain lead or copper, however under EPA test protocol; water is tested at the tap. Tap test show that where a customer may have lead soldered copper pipes, the water is not corrosive. Phosphate, a corrosion inhibitor is added prior to distribution.
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.	**(a1)** **(a2)**	**90% of lead samples tested should be below 15 ppb** **90% of copper samples tested should be below 1300 ppb**
AL	**ACTION LEVEL**- The concentration of a contaminant that triggers a treatment or other requirement that a water system must follow.	**(b)**	FLUORIDE is added in water treatment to bring the natural level to the optimum of .8 ppm, which is recommended by the EPA.(see definition of ppm)
TT	**TREATMENT TECHNIQUE**- A required treatment technique or process known to be effective in reducing the health of contaminants in drinking water.	**(c)**	**2013 Lead and Copper** results were taken from representative sampling sites within the city.
ppm (mg/L)	**ONE PART PER MILLION** is the equivalent of one penny in ten thousand dollars. (same as milligram per liter- mg/L)	**NTU**	**NEPHELOMETRIC TURBIDITY UNIT** is the measurement of water clarity. Water turbidity in excess of 5 NTU is just noticeable to the average eye.
ppb (ug/L)	**ONE PART PER BILLION** is the equivalent of one penny in ten million dollars. (same as microgram per liter- ug/L)	**(d)**	**TURBIDITY** has no health effects. However, turbidity can interfere with disinfection, and can indicate the presence of microbial growth.
MRDL	**MAXIMUM RESIDUAL DISINFECTANT LEVEL** The highest level of a disinfectant allowed in drinking water.	**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.

Monitoring and Testing of Water Constituents

The City of Greensboro Water Treatment Plant routinely monitors and conducts extensive testing for various constituents in your drinking water according to Federal and State laws. The table below shows the results of our monitoring for the period **January 1st 2015 to December 31st 2015**

NOTE: Fluoride, Turbidity and Chlorine are tested daily at the water- plant; all other parameters are tested by the State EPD Laboratories.

SUBSTANCE	DATE TESTED	UNIT	MCLG	TT	AMOUNT DETECTED	RANGE	PROBABLE SOURCES	VIOLATION
INORGANIC SUBSTANCES								
LEAD (a) (a1)	September 2013	ppb (ug/L)	0 ppb	AL=15 ppb	2.5 ppb	0.0 –2.5 ppb	Corrosion of household plumbing systems	NO - Given a waiver for 3 years
COPPER (a) (a2)	September 2013	ppb (ug/L)	1300 ppb	AL=1300 ppb	140 ppb	0.0 -210 ppb	Corrosion of household plumbing systems	NO - Given a waiver for 3 years
NITRATE	YEARLY	ppm (mg/L)	10 ppm	10 ppm	.69 ppm	0 - .69 ppm	Soil runoff and fertilizer	NO
FLUORIDE (b)	DAILY	ppm (mg/L)	4 ppm	4 ppm	.92 ppm	.7 – .92 ppm	Erosion of natural deposits; water additive which promotes strong teeth.	NO
TURBIDITY								
TURBIDITY (d)	DAILY	NTU	0 NTU	TT 5 NTU	.12 NTU	.02 – .12 NTU	Soil runoff	NO
DISINFECTION BY-PRODUCTS, BY-PRODUCTS PRECURSORS AND DISINFECTION RESIDUALS								
TOTAL ORGANIC CARBON (TOC)	Monthly	ppm (mg/L)	N/A	N/A	1.42 ppm monthly average	1.0 – 1.7 ppm	Naturally present in the environment.	NO
TOTAL TRIHALO METHANES (TTHMs)	Quarterly 2 Sites	ppb (ug/L)	0 ppb	80 ppb	Site 1: 55 ppb running average Site 2: 28 ppb running average	17 – 86 ppb	By product of drinking water disinfections.	NO
TOTAL HALOCETIC ACIDS (THAAs)	Quarterly 2 Sites	ppb (ug/L)	0 ppb	60 ppb	Site 1: 26 ppb running average Site 2: 22 ppb running average	13 –39 ppb	By product of drinking water disinfections	NO
CHLORINE FREE AVAILABLE	Daily	ppm (mg/L	MRDLG=4	MRDL=4	1.47 ppm daily average	.74 – 2.3 ppm	Drinking water disinfectant	NO
MICROBIOLOGICAL								
TOTAL COLIFORM BACTERIA (TC)	Monthly	Percent	0% positive samples during a monthly sampling period	Less than 5% positive samples during a monthly sampling period	NEGATIVE For presence of bacteria	0	Naturally present in the environment	NO

LEGAL AUTHORITY
GEORGIA 'S DRINKING WATER ACT OF 1977
OCGA 12-5-17 ET SEQ,

ENVIRONMENTAL PROTECTION DIVISION
GEORGIA DEPT. OF NATURAL RESOURCES
SUITE 1362, EAST FLOYD TOWER
ATLANTA, GEORGIA 30334

DRINKING WATER CHEMICAL MONITORING WAIVER CERTIFICATE

GREENSBORO, GA1330000:

TP 201, 212 N MAIN ST - GREENSBORO WATER PLANT, EP 301

The above-listed entry points (EPs) have complied with the following four criteria:

1). All synthetic organic compounds (SOCs), including dioxin baseline monitoring requirements demonstrating that the system's distributed drinking water complies with the chemical monitoring standards of the Georgia Rules for Safe Drinking Water;

2). All asbestos and cyanide baseline monitoring requirements demonstrating that the system's distributed drinking water complies with the chemical monitoring standards of the Georgia Rules for Safe Drinking Water;

3). The water system has maintained an up-to-date payment standing with the chemical monitoring portion of the Drinking Water Fee System at the time of waiver issuance;

4). The Vulnerability Assessment(s) or Well Head Protection Plan(s) or Source Water Assessment(s) prepared for the water system by EPD show this system's raw and distributed water to not be in a high potential pollution risk situation.

Therefore, this water system is hereby issued chemical monitoring waivers (only for the entry point(s) listed above) for the following synthetic organic compounds from January 1, 2014 to midnight December 31, 2016:

SYNTHETIC ORGANIC COMPOUNDS: Alachlor, Aldicarb Sulfone, Aldicarb Sulfoxide, Atrazine, Benzo (A) Pyrene, Carbofuran, Chlorodane, Dalapon, Di (2-Ethylhexyl) Adipate, Dibromochloropropane (DBCP), Dinoseb, Diquat, Di (2-Ethylhexyl) Phthalate, Endothall, Endrin, Ethylene Dibromide (EDB), Glyphosate, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxymyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated Biphenyls (PCBs), Simazine, 2,4-D, Toxaphene, 2,4,5-TP (Silvex), 2,3,7,8 – TCDD (Dioxin).

It is also issued chemical monitoring waivers (only for the entry point(s) listed above) for the following inorganic constituents from January 1, 2014 to midnight, December 31, 2016:

INORGANIC CONSTITUENTS: Asbestos and Cyanide.

Kent Hankinson

Kent Hankinson, P.G.
EPD Waiver Initiative

We the citizens of Greensboro have a lot to be thankful for, in that we have an abundance of fresh, clean, and safe drinking water. We here at the City of Greensboro Water Department work hard around the clock to provide you the citizens, with some of the best drinking water in the state of Georgia. We ask all of our customers to help us preserve and protect our valuable water resources, which are the heart of our community, our way of life and our children's future. If you have any questions, please feel free to call Lamar Callaway (Surface Water Treatment Plant Manager at 706-453-2782 or come by the City Hall at 212 North Main Street Greensboro, Georgia.