

## 2009 Water Quality Testing Result Table for Ravines WTP

<b>Inorganic Contaminants</b> – Salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb) **	6/08	N	0.9	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes
Barium (ppm)	6/08	N	0.0076	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	6/08	N	0.2	N/A	4	4	Discharge from metal refineries and coal burning factories; discharge from electrical aerospace, and defense industries.
Fluoride (ppm)	6/08	N	0.18	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm ; discharge from fertilizer and aluminum factories
Nickel (ppb)	6/08	N	.4	N/A	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Selenium (ppb)	6/08	N	3.3	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	6/08	N	4.2	N/A	N/A	160	Salt water intrusion, leaching from soil
** While your drinking water meets US EPA's standard for arsenic, it does contain low levels of arsenic. US EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.							
<b>Radiological Contaminants</b> – Naturally occurring or the result of oil and gas production and mining activities							
Radium 226 or combined radium (pCi/l)	6/08	N	0.2	N/A	0	5	Erosion of natural deposits
<b>TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters</b> - For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the highest annual average or the quarterly averages; Bromate, Chloramines, Cl2, Haloacetic Acids, and /or TTHM (MCL 80 ppb). Range or results is the lowest to highest at the individual sampling sites.							
Haloacetic Acids (five) (HAA5) (ppb)	7/09	N	1.58	1.58	N/A	MCL = 60	By-product of drinking water disinfection.
TTHM [Total trihalomethanes] (ppb)	7/09	N	5.92	5.92	N/A	MCL = 80	By-product of drinking water disinfection
Chlorine (ppm)	2009	N	0.79 Avg	0.6-1.1	MRDLG = 4	MRDL = 4	Water additive used to control microbes
<b>Lead and Copper (Tap Water)</b> - Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90 <sup>th</sup> Percentile Result	No. of sampling sites exceeding the AL	MCLG	MCL	Likely Source of Contamination
Copper (tap water) ppm	8/09	N	0.052	0 of 22	1.3	1.3	See Above
Lead (ppb) ***	8/09	N	1.1	2 of 22	0	15	See Above
***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. CCUA 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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a> .							
<b>Definitions</b>							
<b>AL</b>	Action Level – Concentration of a contaminant, if exceeded, triggers treatment or other requirements that a water system must follow.						
<b>ND</b>	Means “not detected” and indicates that the substance was not found by laboratory analysis.					<b>CDC</b>	Center for Disease Control
<b>MCL</b>	Max 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.					<b>WTP</b>	Water Treatment Plant
<b>MCLG</b>	Max Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known/expected risk to health. MCLGs allow for a margin of safety.					<b>pCi/l</b>	Picocuries per liter - Measure of the radioactivity in water.
<b>MRDL</b>	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.					<b>N/A</b>	Not Applicable
<b>MRDLG</b>	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.						
<b>PPB</b>	1 part by weight of analyte to 1,000,000,000 parts of water sample by weight. (corresponds to 1 penny in \$10,000,000)						
<b>PPM</b>	1 part by weight of analyte to 1,000, 000 parts by weight of water sample. (corresponds to 1 minute in almost 2 years)						
The Florida Department of Environmental Protection (FDEP) has performed a source water assessment on our system in 2009 and search of the data sources indicated petroleum storage tanks that have a moderate susceptibility level and domestic wastewater that has a low susceptibility level as potential sources of contamination near our wells. The assessment results are available on the DEP Source Water Assessment and Protection Program website at <a href="http://www.dep.state.fl.us/swapp">http://www.dep.state.fl.us/swapp</a>							

# ANNUAL DRINKING WATER QUALITY REPORT

January through December 2009

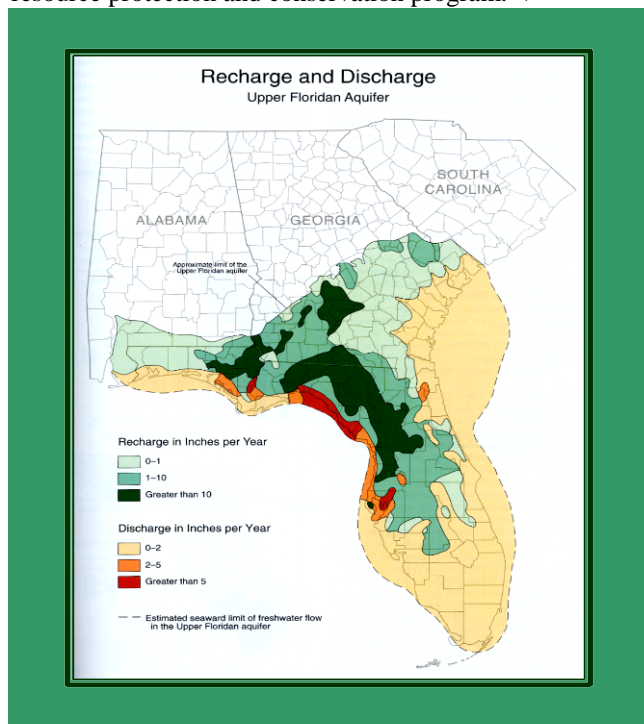
## - WATER SUPPLY -

The Clay County Utility Authority routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2009. Data obtained before January 1, 2009, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

Our community is blessed with an abundant supply of drinking water. Our water comes from the Floridan Aquifer. The Floridan Aquifer is a vast area that underlies approximately 100,000 square miles in southern Alabama, southeastern Georgia, southern South Carolina and all of Florida. The Floridan Aquifer contains high quality ground water that is confined well below ground level.

Geologic formations, known as confining layers protect ground water from contamination. Locally, Keystone Heights is a primary recharge area for the Floridan Aquifer. Natural recharge from areas as far away as Georgia also helps to maintain water levels in the aquifer.

In your area, we use two (2) wells located at the water treatment plant (known as the Ravines Water Treatment Plant) to **withdraw** water from the Floridan aquifer. These wells average approximately 1,000 feet in depth. After water has been withdrawn from the aquifer, it is aerated, disinfected and then pumped to your home. Our highest priority at the Clay County Utility Authority is to ensure our customers have safe drinking water. In order to make sure we have an adequate water supply in the future, the Authority has implemented an impressive water resource protection and conservation program. ❖



## - GENERAL INFORMATION -

The 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 the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

(A) **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. (B) **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. (C) **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. (D) **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. (E) **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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer, undergoing chemotherapy, persons who have 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 lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the **Safe Drinking Water Hotline at 1-800-426-4791**. ❖