City of Flagler Beach Water Quality Report 2016

The City of Flagler Beach is pleased to present you with this year's Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day. We are a nanofiltration plant using chlorine for disinfection, zinc polyphosphate for corrosion control, aeration, and pH stabilization. Our ground water source is drawn from 3 wells within the Floridian Aquifer and we are committed to ensuring the quality of your water. If you have any questions regarding this report please call Jim Ramer at the Water Plant at 437-3776.

In order to ensure that tap water is safe to drink, Environmental Protection Agency prescribes regulations, which limits 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.

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 EPA Safe Drinking Water Hotline at 800-426-4791.

The sources of drinking water (both tap water and bottled water) include river, lake, 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 includes: A) Microbiological contaminants, such as viruses and bacteria, which may come from Sewage Treatment Plants, septic system, agricultural livestock operations and wildlife. B) Inorganic contaminants such as salts and metals, which can be naturally occurring or result from urban storm water run-off, industrial or domestic waste-water discharges, oil and gas production, mining, or farming. C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water run-off, 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 storm water run-off and septic systems. E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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 risks of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The City of Flagler Beach routinely monitors for contaminants in your drinking water according to Federal and State laws. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 through December 31 2016. However, the state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data, though representative, may be more than one year old.

You will find many terms and abbreviations you may not be familiar with. To help you understand the terms we've provided the following definitions;

1. Maximum contaminant level (MCL) - the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to MCLG's as feasible using the best available treatment technology.
2. Maximum contaminant level goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
3. Action level (AL) - the concentration of a contaminant which if exceeded, triggers treatment of other requirements that a water system must follow.
4. Parts per million (ppm) or Milligrams per liter (mg/L) - one part by weight of analyte to 1 million parts by weight of the water sample.
5. Parts per billion (ppb) or a microgram per liter (mg/L) - one part by weight of analyte to 1 Billion parts by weight of the water sample.
6. Picocurie per liter (pCi/L) - measure of radioactivity in water.
7. N/D – means not detected and indicates the substance was not found by laboratory analysis.
8. N/A - Not Applicable
9. Maximum residual disinfection levels – (MRDL) 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.
10. Maximum residual disinfectant level goal (MRDLG) – 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.

Our water system is now in compliance for Total Trihalomethanes (TTHM's). The City, with the help of the city consulting engineers Mittauer & Associates is using nanofiltration to reduce Trihalomethanes in the City drinking water.

In 2015 the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data source indicated one potential contaminant source with a low concern level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Flagler Beach 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. Additional information is available at City Hall, the Library and the Water Treatment Plant, as well as the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Test Results Table 2016

** Results in the Level column for radiological contaminants, inorganic contaminants, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any point depending on the sampling frequency.

Contaminant and Unit of Measurement	Dates of Sampling Month & Year	MCL violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Antimony (ppb)	Feb-14	N	0.76	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium (ppm)	Feb-14	N	0.0037	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Sodium (ppm)	Feb-14	N	52	N/A	N/A	160	Salt water intrusion ,leaching from soil

For bromate, chloramines, or chlorine, the levels detected is the highest running annual average (RAA), computed quarterly, of the monthly average of all samples collected. For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly or is the highest result of all samples taken during the year if the system monitors less frequently than quarterly.

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling Month & Year	MCL or MRDL violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MDRL	Likely Source of Contamination
Stage 2 Disinfectants and Disinfection Byproducts							
TTHM'S [Total trihalomethanes] (ppb)	Jul-16	N	21.19	6.47 - 21.19	N/A	MCL = 80	By-product of drinking water disinfection
HAA5 (Total Haloacetic Acids (ppb)	Jul-16	N	6.68	4.47 - 6.68	N/A	MCL = 60	By-product of drinking water disinfection
Chlorine (ppm)	Jan-16 thru Dec-16	N	2.3	1.5 to 2.8	MRDLG = 4	MRDL = 4	Water additive used to control microbes

Lead And Copper Tap Water Contaminant and unit of Measurment	Dates of Sampling Month & Year	AL Violation Y/N	90th % Result	# of sampling sites exceeding the AL	MCLG	AL	Likely Source of Contamination
Lead (tap water) (ppb)	Jul-15	N	0	0 out of 20 samples	0	15	Corrosion of household plumbing Erosion of natural deposits
Copper (tap water) (ppm)	Jul-15	N	0.13	0 out of 20 samples	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.