



Water Quality Report 2016



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THE CITY OF JACKSONVILLE BEACH IS PLEASED TO PRESENT THE ANNUAL DRINKING WATER QUALITY REPORT FOR 2015

This report is designed to inform you, the consumer, about the quality of your drinking water, and the services that we deliver every day to ensure it is safe. In order to ensure that the tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

Our water supply is drawn from a series of six wells extending into the pristine Floridian Aquifer. The Floridian Aquifer is the source of drinking water for the majority of North Florida's water system. Once the water is pumped from the wells, the water is aerated to remove the hydrogen sulfide (rotten egg smell). Chlorine is added for disinfection purposes; the water is then pressurized for the water distribution system.

In August 2016, the Department of Environmental Protection performed a source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 5 potential sources of contamination identified for this system with low to moderate levels of susceptibility. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

WANT MORE INFORMATION?

If you have any questions about this report or want additional information concerning your water utility, please contact the Water Division, at (904) 247-6278. Additional copies of this report are available at City Hall, 11 N. Third Street, or the Public Works Administration Office at 1460-A Shetter Avenue, second floor. This report may also be accessed at the City's website www.jacksonvillebeach.org under Departments, Public Works, Drinking Water Report. We value our customers and encourage you to contact us.

Thank you for allowing us to continue providing your family with clean, quality water. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all our customers. These improvements are sometimes reflected as rate structure adjustments.

Thank You!

The City of Jacksonville Beach routinely monitors your drinking water for contaminants according to Federal and State laws, rules, and regulations. Water samples are collected citywide and tested for bacteriological and chemical components.

Our goal is to provide a safe and dependable supply of drinking water. We want you to understand the efforts made to improve the water treatment process and to protect our water resources. Another important way we protect our drinking water is through our Cross Connection/Backflow Prevention Program.

The City of Jacksonville Beach 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, 2016. Data obtained before January 1, 2016, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

If you have any questions or concerns regarding the information provided in this report, please call either of the following numbers: Jacksonville Beach Water Plant (904) 247-6278 or the Environmental Protection Agency (EPA) safe Drinking Water Hotline (800) 426-4791.





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TYPES OF CONTAMINANTS

The sources of drinking water (both tap water and bottled water) include rivers, lakes, ponds, springs, and wells. As water travels over the surface of the land, it dissolves naturally occurring minerals and, in some cases, radioactive material. Water can also pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

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

Inorganic Contaminants, such as 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.

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

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 runoff, and septic systems.

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, the EPA prescribes regulations which 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 be reasonably 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.

IMPORTANT HEALTH INFORMATION

Stage 2 Disinfection By-Products

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for total trihalomethanes from 1/16 through 3/16. The levels of total trihalomethanes are shown in the Test Results Table. 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 systems, and may have an increased risk of getting cancer.

Total Coliform

Our system was in violation of state and federal monitoring requirements for failing to sample all representative wells following a total coliform positive from 9/16 through 10/16. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in the groundwater. When this occurs, we are required to sample all active wells delivering water to that area.

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for Trihalomethanes from 2/03/16 through 5/03/16. The levels of trihalomethanes are shown in the Test Results Table. 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 systems, and may have increased risk of getting cancer. 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 have undergone organ transplants, persons 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 health care providers. Our system corrected the violation by; the chlorine injection system at the Water Treatment Plant has been adjusted in conjunction with the Public demand flow. We have set up flushing points to improve circulation of water in areas that may have lower volume flows. The water system will continue to be monitored and adjusted to reduce the formation of trihalomethanes.

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 Jacksonville 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.

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/safe-water/lead>. The Environmental Protection Agency and the Center for Disease Control (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 (800)426-4791.



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TEST RESULTS

NON-SECONDARY CONTAMINANTS TABLE

Inorganic Contaminants

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
Barium (ppm)	6/26/2014	N	0.029	ND-0.029	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm Salt water intrusion, leaching from soil
Fluoride (ppm)	6/26/2014	N	0.78	0.76-0.78	4	4.0	
Sodium (ppm)	6/26/2014	N	33	14.3-33	N/A	160	

Stage 1 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	Monthly	N	1.7	1.44-2.24	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products

For haloacetic acids or TTHM, the level detected is the highest locational RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.

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
Haloacetic Acids (HAA5) (ppb)	02/2016, 05/2016 08/2016, 11/2016	N	17.38	3.70-20.5	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	02/2016, 05/2016 08/2016, 11/2016	Y	81.25	8.70-79.40	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	AL Exceeded (Y/N)	90th Percentile Result	Number of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	06/2016	N	0.2520	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives Corrosion of household plumbing systems; erosion of natural deposits
Lead (tap water) (ppb)	06/2016	N	1.45	0	0	15	

TERMS AND ABBREVIATIONS

In the test results data table you may find terms and abbreviations that are not familiar. The following definitions will help you better understand these terms:

MAXIMUM CONTAMINANT LEVEL OR MCL: 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.

MAXIMUM CONTAMINANT LEVEL GOAL OR MCLG: The level of a contaminant in drinking water below which there is no known or expected risks to health, MCLGs allow for a margin of safety.

MAXIMUM RESIDUAL DISINFECTANT LEVEL OR 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.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL OR MRDLG: The level of a drinking water disinfectant below where there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ACTION LEVEL (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

PARTS PER MILLION (PPM) OR MILLIGRAMS PER LITER (mg/l): One part by weight of analyte to million parts by weight of water sample.

PARTS PER BILLION (PPB) OR MICROGRAMS PER LITER (ug/l): One part by weight of analyte to 1 billion parts by weight of the water sample.

NOT DETECTED (ND): Indicates that the substance was not found by laboratory analysis.