

# Water Quality Report – 2016

## City of Palatka

The City of Palatka is pleased to present to you this year's Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. It covers the period from January 1, 2016 through December 31, 2016. Our constant goal is to provide you with a safe and dependable supply of drinking water.

The City's water supply is taken from groundwater sources. It is then aerated for hydrogen sulfide removal, filtered to remove organics and chlorinated for disinfection purposes. The City of Palatka has eight wells, which are located between Moody Road and Kay Larkin Drive on the west side of Palatka. The wells draw from the Floridian Aquifer. Over the period included in this report your water treatment system treated and supplied almost 598.2 million gallons of water to approximately 6000 service connections.

In 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. The results of the evaluation of the system and a search of the data sources available indicated two (2) potential sources of contamination near our wells. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) or they can be obtained from the R.C. Willis Water Plant at (386) 329-0144.

If you have any questions about this report or concerning your water utility, please contact Melvin Register at (386) 329-0144. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second and fourth Thursdays of each month at 6:00 PM at City Hall.

The City of Palatka routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup> 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. As water travels over the land or underground it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

**WATER QUALITY TEST RESULTS TABLE**

Microbiological Contaminants						
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (Positive Samples)	1/16- 12/16-3/2016	Y	45	0	Presence of coliform bacteria in >1 sample collected during a month.	Naturally present in the environment

In January and December, the bacteriological monitoring for the City of Palatka of Palatka showed a high number of Total Coliform positive samples, and the MCL was exceeded. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. In addition, while the numbers of samples collected ensured that all areas of the distribution system were covered, in some cases, sites that should have been sampled twice were only sampled once. As a result, a violation was generated due to an insufficient number of confirmation samples having been collected.

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	TT Violation	Result	MCLG	TT	Likely Source of Contamination
Total Coliform Bacteria After new rule beginning April 1, 2016)	4/16 -12/2016	Y	Positive	N/A	TT	Naturally present in the environment

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 water treatment or distribution. When this occurs, we are required to conduct assessment to identify problems and to correct any problems that were found during these assessments. During the past year we were required to conduct a Level 1 assessment. The Level 1 assessment was completed and all corrective actions were completed.

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)	7/2014	N	0.011	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	7/2014	N	0.15	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen) (ppm)	9/2016	N	0.08	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	7/2014	N	74.1	N/A	N/A	160	Salt water intrusion, leaching from soil

Stage I Disinfectants**							
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)	2016	N	1.0	0.6-1.0	MRDLG=4	MRDL = 4.0	Water additive used to control microbes

Stage 2 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
Haloacetic Acids (five) (HAA5) (ppb)	3/2016, 6/2016, 9/2016, 12/2016	N (LRAA)	13.6088	9.407.5 – 17.5410	N/A	MCL = 60	By-product of drinking water disinfection
TTHM (ppb)	3/2016, 6/2016, 9/2016, 12/2016	N (LRAA)	77.9074.0 8	32.90 - 88.90	N/A	80	By-product of drinking water chlorination

TTHM Monitoring Results (ppb)	1st quarter 2016	2nd quarter 2016	3rd quarter 2016	4 <sup>th</sup> quarter 2016
L1: Boat Ramp Quarterly Results	58.60	81.6	74.6	47.8
L1: Boat Ramp LRAA****	58.4	61.4	68.6	65.65
L3: Bronson & 7th St Quarterly Results	59.2	88.9	86.3	32.9
L3: Bronson & 7th St LRAA****	64.0	63.0	74.08	66.83

Three samples in 2016 had a TTHM result higher than the MCL of 80 ppb, however the system did not incur an MCL violation because all annual average results at all sites were at or below the MCL. 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.

Contaminant and unit of measurement	Date of Sampling	AL Violation Y/N	90 <sup>th</sup> Percentile Result	No. of sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
<b>Lead and Copper (Tap Water)</b>							
Copper (ppm)	9/2016	N	0.231	0	1.3	1.3	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead (ppb)	9/2016	N	0.00152	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

\* Results in the Level Detected column for radioactive contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

\*\* For chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages 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 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

\*\*\*\* Reported LRAA for quarters 1-3 are based on results from previous quarters not reported on this table.

The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the tables above are the only contaminants detected in your drinking water.

In this table above, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

**Action Level (AL)**- the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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 risk 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 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.

**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.

**Parts per billion (ppb) or Micrograms per liter (µg/l)** – one part by weight of analyte to 1 billion parts by weight of the water sample.

**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

**Lead.** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the MCL could experience delays in their physical and mental development. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Palatka Water Treatment 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. Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed replaced or reduced. 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>.

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.

*Microbiological Contaminants:*

(1) Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

We failed to complete required sampling for Total Coliform in March of 2016 on time and therefore were in violation of monitoring and reporting requirements. Because we did not take the required number of samples, we do not know whether or not total coliform was present in your drinking water. The monitoring period was 3/1/2016 through 3/31/2016. Ten samples were required for total coliform, and none were taken. Sampling resumed in April on 4/4/2016.

(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, 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 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.

We monitored for Unregulated Contaminants (UCs) in 2014 and 2015 as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) or likely sources have been established for UCs. However, we are required to publish the detected analytical results of our UC monitoring in our annual water quality report. For the complete list of results, including the non-detected contaminants, contact Melvin Register at 386-329-0144. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

<i>Contaminant</i>	<i>Date of Sampling (mo/yr)</i>	<i>Level Detected</i>	<i>Range</i>	<i>Likely Source of Contamination</i>
Chlorate	8/2014, 2/2015	391.25	235-537	Unknown
Chromium	8/2014	0.255	0.25-0.26	Unknown
Strontium	8/2014	1090	1010-1170	Unknown

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

**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, 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 (800-426-4791).**

Please call our office, at (386) 329-0144, if you have questions. We at the City of Palatka work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.