



2016 Flagler County Water Quality Report – Plantation Bay PWS #2184251

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Plantation Bay's Water Source

Our water source is ground water from four wells drilled 150 – 160 feet into the Floridan Aquifer. In 2016, the Florida Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated no 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.

Plantation Bay's Water Treatment Plant

Plantation Bay operates a 0.756 million gallons per day (MGD) water treatment plant that currently serves about 1,776 households within the community. The process for treating the water, distributed to Plantation Bay consists of a 1.50 MGD Aeration Tank, a 0.756 MGD Lime Softening System, a 0.756 MGD Sand Filtration System, a Chloramine Disinfection System (that separately injects Chlorine and Ammonia into the filtered water), a system that injects a corrosion inhibitor (to control Lead and Copper in the water) and a 450,000 gallon ground level Storage Tank.

Monitoring of Plantation Bay's Water

Plantation Bay Utility Company 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. This report shows our water quality results and what they mean.

Contact For Additional Information

If you have any questions concerning your water or this report, please contact Raymond Panas, Utilities Coordinator at (386) 313-4133.

What Can We Expect to Find in Our Drinking Water?

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, the 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.**

How This Report Shows Our Water Quality Results and What They Mean

This report shows our water quality results and what they mean to you. It also provides important information about your water and how it relates to your health. The information in this report is based primarily on 2016 facts and figures. However, the U.S. Environmental Protection Agency (EPA) does not require us to perform all tests every year. When necessary, some data was obtained from prior years. As directed by the agencies that regulate our industry, only values from these tests that exceeded specified criteria are included. We will notify you immediately if there is any reason for concern.

How Do I Read This?

It’s easy. The table shows the results of our water quality analyses. The column marked “Level Detected” shows the highest results from the last time tests were performed. “Likely Sources” shows where this substance usually originates. Descriptions below explain other important details. In this table you may find unfamiliar terms and abbreviations. To help you better understand these terms, we’ve provided the following definitions:

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.*

ND: *Means not detected and indicates that the substance was not found by laboratory analysis.*

Parts per million (ppm) or Milligrams per liter (mg/l): *One part by weight or analyte to 1 million parts by weight of the 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.*

Picocurie per liter (pCi/l): *Measure of the radioactivity in water.*

Action Level (AL): *The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.*

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.*

Minimum Detectable Limit or MDL: *The analysis result is equal or less than the detectable limits of the laboratory.*

Local Running Annual Average or LRAA: *Average of results over the last four quarters.*

N/A: *Means not applicable.*

2016 ANNUAL DRINKING WATER QUALITY TEST RESULTS

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
Fluoride (ppm)	07/15	N	0.12	N/A	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7.

Nitrate (as Nitrogen) (ppm)	06/16	N	0.74	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite (as Nitrogen) (ppm)	06/16	N	0.05	N/A	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	07/15	N	35.8	N/A	N/A	160	Salt water intrusion, leaching from soil

Synthetic Organic Contaminants including Pesticides and Herbicides

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
Dalapon (ppb)	02/15, 04/15, 07/15	N	1.2	ND-1.2	200	200	Runoff from herbicide used on right of ways

Stage 2 Disinfectant and Disinfection By-Products

For chlorine, the level detected is the highest running annual average (RAA), computed quarterly of monthly averages of all samples collected. The range of results is the range of results of all individual samples collected during the past year.

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. Range of results is the range of individual sample results (lowest to highest) for all monitoring locations.

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected (LRAA)	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramines (ppm)	Monthly 2016	N	2.59	0.6 – 4.5	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes.
Haloacetic Acids (five) (HAA5) (ppb)	08/16	N	29.1	24.3 – 29.1	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	08/16	N	56.9	32.1 – 56.9	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water) testing not required until 2017

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	06/14	N	0.21	0 of 10	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water)(ppb)	06/14	N	4.0	0 of 10	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Highest Result	Range of Results	MCLG	MCL	Likely Source of Contamination
Secondary Contaminants							
Aluminum (ppm)	08/16, 12/16	Y*	0.45	ND - 0.45	NA	0.2	Natural occurrence from soil leaching
Color (color units)	08/16, 9/16	Y*	25	ND - 25	NA	15	Naturally occurring organics

**Aluminum and color exceedances are not considered to be harmful to human health. They affect the aesthetic quality of the water.*

In 2016, we failed to sample for Dalapon as required. A sample was taken in March of 2017 that resulted in no detection. Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.

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. Flagler County 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>

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer under-going 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 (1-800-426-4791).

We at Flagler County utilities would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to insuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to contact Raymond Panas, Utilities Coordinator at (386) 931-3433 or any of the numbers listed above.