



2019 ANNUAL DRINKING WATER QUALITY REPORT

Revised 4/14/2020

Re: 2019 Water Quality Report – Town of Gulf Stream

Dear Customers and/or Residents:

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of 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. The Town of Gulf Stream purchases its water from the City of Delray Beach Utilities. The City of Delray Beach withdraws water from shallow under-ground aquifers, known as the "Anastasia Formation", through wells and applies a lime softening process to treat the water. The Delray Beach Treatment Plant utilizes what is known as "Lime Softening Process" to treat raw water prior to distribution to its customers. Upon arrival at the Water Treatment Plant, the raw water is first aerated to remove natural gases. The water is then blended with lime in a clarifier for softening, color removal and iron removal. After the blending process the water is then filtered and disinfected per Federal and State drinking water standards. Prior to distribution, Fluoride is injected to maintain one part per million to prevent tooth decay.

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact the City of Delray Beach Water Plant 561-243-7318 or the Town Hall 561-276-5116.

The Town of Gulfstream 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 water monitoring for the period of January 1 to December 31, 2019. The data obtained and presented in this report are from the most recent tests performed in accordance with the established drinking water laws, rules, and regulations.

The Town of Gulf Stream is responsible to test for total Coliform bacteria monthly and Lead and Copper every thirty-six (36) months in accordance with 40 CFR 141. Subpart I. The City of Delray Beach, the primary supplier, is responsible for the monitoring of additional Primary and Secondary contaminants prior to its delivery in accordance with reporting period of January 1 to December 31, 2019

The chart below shows substances that the EPA requires our utility to report. To determine how we compare to the federal regulation, compare the column that shows the highest level allowed by EPA (MCLs) to the column that shows the level detected at our utility during 2019, our last testing period.

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates Of Sampling (mo./yr.)	AL Exceeded Y/N	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	Action Level (AL)	Likely Source of Contamination
Copper (tap water) (ppm)	1/19-12/19	N	.016 mg/L	0	1.3	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (tap water) (ppb)	1/19-12/19	N	0.84 ppb	0	0	15 ppb	Corrosion of household plumbing systems, erosion of natural deposits.

Primary Inorganic Contaminants

Contaminant and Unit of Measure	Dates Of Sampling (mo./yr.)	MCL or MRDL Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Nitrates as Nitrogen (ppm)	8/20/2019	N	0.4 ppm	0.4	10 ppm	10 ppm	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Nitrite as Nitrogen (ppm)	8/20/2019	N	0.68 ppm	0.68	10 ppm	1 ppm	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits

Stage 2 Disinfectants and Disinfection By-Products (DDPB) Parameters/Stage 1 Chloramines

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For haloacetic acids or TTHM, the level detected is the highest locational running annual average (LRAA), computed quarterly, or 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 in 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 Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAAS) (ppb)	1/19 – 12/19	N	14.0	13.0 – 14.0	N/A	60	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (ppb)	1/19 – 12/19	N	26.3	26.1– 26.3	N/A	80	By-product of drinking water disinfection.

Stage I Disinfection Residual (Chloramines)

Disinfectant Residual and Unit of Measurement	Dates of Sampling Month and Year	MCL or MRDL Violation Y or N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramines (ppm)	1/19 through 12/19	N	3.0 ppm	0.1 through 5.0	4 ppm	4 ppm	Water Additive to Control Microbes

Microbiological Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo.lvr.)	TT Violation	Results	MC LG	MCL	Likely Source of Contamination	
E. coli (at the wellhead ground water source)**	11/19	y	1	0	0	Human and Animal Fecal Waste	
The following is a list of the definition and likely source of contamination for each detected contaminant.							
(a) Barium	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.						
(b) Fluoride	Erosion of natural deposits; water additive which promotes strong teeth at optimum levels between 0.7 and 1.2 ppm; discharges from fertilizer and aluminum factories.						
(c) Lead (point of entry)	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing and solder.						
(d) Nitrate as Nitrogen	Formed when nitrogen is exposed to oxygen; both are elements occurring in nature. A likely source is erosion of natural deposits.						
(e) Sodium	Saltwater intrusion; leaching from soil.						
(f) TTHM's & HAA's	TTHM's & HAA's are contaminants formed when chlorine reacts with carbon compounds naturally occurring in ground water, such as chloroform. These items are a bi-product of drinking water Chlorinating.						
(g) Chloramines	Water additive used to control microbes.						
(h) Lead	Lead is an element occurring in nature and often occurs in water as the result of corrosion of household plumbing systems.						
(i) Copper	Copper is an element occurring in nature and often occurs in water as the result of corrosion of household plumbing systems.						
(U) Manganese	Manganese is a silvery-gray metal occurring in nature, essential to iron and steel production.						

*We monitored for Unregulated Contaminants (UCs) in 2019 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) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule (UCMR), please call the Safe Drinking Water Hotline at (800) 426-4791.

**In November 2019, one of our thirty source water wells sample returned a positive result for the fecal indicator, E. coli. All 76 potable water distribution system samples taken tested absent for E. Coli in the month of November. No distribution water samples tested positive for E. Coli from January 1, 2019 to December 31, 2019.

Health Effects: E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.

This positive result for E. Coli resulted in a Level 2 Assessment. Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Recordkeeping of compliance data: Due to administrative oversight during a busy part of the year, our office failed to submit a report required under the Safe Drinking Water Act. This violation has no impact on the quality of the water our customers received, and it posed no risk to public health. We have established a report tracking file to ensure that all reporting requirements are met in the future.

Cross Connection Control Requirement: The City implemented a cross connection control plan in 2005. Our records for cross connection control and backflow prevention were recently found to be inadequate. The City has been working with the Palm Beach County Department of Health (DOH) since January 2020 to ensure adequate record keeping and implementation of cross control and backflow prevention and anticipate achieving compliance on this by May 2020.

DEFINITIONS: *The terms and abbreviations found in the above table are defined below:*

Maximum Contaminant Level Goal (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 Contaminant Level (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 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) – *one part per million corresponds to one minute in two years or a single penny in \$10,000.*

Parts per billion (ppb) – *one part by weight of analyte to 1 billion parts by weight of the water sample.*

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

ND – *means not detected and indicates that the substance was not found in laboratory analysis.*

A – *Absent*

IMPORTANT INFORMATION:

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 Town of Gulf Stream 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 on the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

The source of drinking water (both tap water and bottled water) includes 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 storm water 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 storm water 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 storm water 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 to limit the amount of certain contaminants water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that 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 Safe Drinking Water Hotline (1-800-426-4791).

We at the Town of Gulf Stream work around the clock to provide top quality water to all our customers. We ask that you help us protect our water systems, which are the heart of our community, our way of life and our children's future.