

2018 Annual Drinking Water Quality Report

For

Floral City Water Association Incorporated

Public Water Supply ID #6090588 January 25, 2019

Floral City Water Association, Inc. (FCWAI) is pleased to present our 2018 Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the 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. At Floral City Water Association, we are committed to ensuring the quality of your water.

Source Water:

FCWAI's water source consists of four groundwater wells drawing water from the Floridan Aquifer. This water is treated at two separate facilities through the use of aeration, filtration, and chlorination. These facilities provide water to over 63 miles of distribution system and over 2200 separate service accounts. With the assistance of Florida Rural Water Association and to ensure the quality of our water, FCWAI has developed a Well Head Protection Plan to prevent possible contamination. In addition to this FCWAI employs two state licensed water treatment operator, two certified distribution technicians, and we have in place a continuing education program to keep our employees current on their knowledge of operations, testing, and maintenance of our facilities.

The 2017 Department of Environmental Protection (DEP) source water assessment of our wells shows some potential contaminant sources. The purpose of the Source Water Assessment and Protection Plan (SWAPP) is to identify potential sources of contamination in the vicinity of our supply wells. The assessment identified four possible sources of contamination which could possible our wells. 2 points of low concern for wells 1 and 2 are the Floral Oaks wastewater facilities on Bedford Road. 2 point of low concern for wells 10 and 11 is the regulated fuel storage for our generator at Plant 3. These are only potential problems. For more information about SWAPP and a full account of our facility go to www.dep.state.fl.us/swapp.

This Annual Drinking Water Quality Report shows our water quality results and what they mean. If you have any questions about this report or concerning your water utility, please contact Gary Judd at 352-726-3366. We want our customers to be informed about their water utility. If you want to learn more, please contact our office during normal business hours. You can also attend our Annual Membership Meeting held every year in the last quarter. Please call for the location and time of the meeting. Our regularly scheduled monthly meetings take place on the third Monday of every month. You must call ahead however, to be placed on the agenda.

FCWAI routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period, of January 1st 2018 to December 31st 2018 except where indicated otherwise. As authorized and approved by the EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, may be over one year old.

In the following tables, you will find many terms and abbreviations you may not be familiar with. To help you better understand these terms we have provided the following definitions:

Definitions

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. One part per million corresponds to one second in 11.5 days or a single penny in \$10,000.

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. One part per billion corresponds to one second in 31.7 years, or a single penny in \$10,000,000.00.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - One part by weight of analyte to 1 trillion parts by weight of the water sample. One part per trillion corresponds to one second in 31,700 years, or a single penny in \$10,000,000,000.00.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - One part by weight of analyte to 1 trillion parts by weight of the water sample. One part per trillion corresponds to one second in 31.7 million years, or a single penny in \$10,000,000,000,000.00.

Pico curies per liter (pCi/L) - picocuries per liter are a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Initial Distribution System Evaluation (IDSE) – An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water companies to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

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

Maximum Residual Disinfection Level (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 contaminant.

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.

Maximum Contaminant Level (MCL) - The “Maximum Allowed” (MCL) is 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 (MCLG) - The “Goal” (MCLG) is 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.

Not Detected (ND) – indicates that the substance was not found by laboratory analysis.

N/A – Not Applicable. These tests did not apply to our system.

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 Safe Drinking Water Hotline at 1-800-426-4791.

Maximum Contaminant Levels (MCLs) are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 the Safe Drinking Water Hotline (800-426-4791).

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. Floral City Water Association 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>.

Our primary objective at Floral City Water Association, Inc. is to provide safe, clean drinking water to our customers. We realize this is a great responsibility and work around the clock to ensure this. If there are ever any questions about the quality or safety of our water, we urge you to contact the office anytime, 24-hours a day. We take this task very seriously and 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.

Please call our office if you have questions.

Gary Judd
Superintendent
January 25, 2019

The following is a table of samples taken. Although additional samples were taken for other constituents in our water, no detectable amounts were found. Included is also a small description of how and why these contaminants can enter our water supply. This description may introduce many of you to the sources of these contaminants.

** Results in the Level Detected column for radiological 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.							
Contaminant (Unit Measurement)	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radiological Contaminants							
Radium 226 (PCi/l)	7/17	N	U	U	0	30	Erosion of natural deposits.
Inorganic Contaminants							
Arsenic (ppb)	6/17	N	0.63	0.21-0.63	0	10	Erosion of natural deposits ; runoff from orchards; runoff from glass and electronics productions waste Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. Salt water intrusion, leaching from soil.
Barium (ppm)	6/17	N	0.0060	0.0037-0.060	2	2	
Nitrate (as Nitrogen) (ppm)	6/17	N	U	U	10	10	
Sodium (ppm)	6/17	N	13.0	5.7-13	N/A	160	
TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters							
For bromate, chloramines, or 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, including Initial Distribution System Evaluation (IDSE) results as well as Stage 1 compliance results.							
Contaminant (Unit Measurement)	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	Daily	N	1.63	0.53- 1.63	MRDGL=4.0	MRDL = 4.0	Water additive used to control microbes

Haloacetic Acids (five) (HAA5) (ppb)	12/18	N	0.89	0.89 – 0.89	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total Trihalomethanes] (ppb)	12/18	N	4.22	2.47 – 4.22	NA	MCL = 80	By-product of drinking water disinfection
Acute MRDL violation: If any daily sample taken at the entrance to the distribution system exceeds the MRDL, and on the following day one or more of the three samples taken in the distribution system exceed the MRDL, then the system is in violation. In addition, failure to take samples in the distribution system the day following an exceedance of the chlorine dioxide MRDL at the entrance to the distribution is also considered an acute MRDL violation. Nonacute MRDL violation: If any two consecutive daily samples taken at the entrance to the distribution system exceed the MRDL and all distribution system samples are less than the MRDL, the system is in violation of the MRDL.							
Contaminant (Unit 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
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	8/17	N	0.93	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Contaminant	Dates of sampling (mo/yr)	Violation Y/N	Total Number of Positive Samples for the Year	MCLG	MCL	Likely source of contamination	
E. coli (at the ground water source)*	1/18 – 12/18	Y	6 Positive Samples	0	0	Human or fecal waste	

* Well 2 is an emergency source and have we have not used since 9/10/18. Although no water is used from this source, regular monthly samples are collected. On October 12, 2018, we sampled Well 2 for the fecal indicator, E. coli. We were notified on October 13, 2018 that Well 2 tested positive for E. coli. On October 15, 2018, we took another sample and were notified on October 16, 2018 that Well 2 was positive for E. Coli. Well 2 was disinfected. On 10/29/18 samples collected showed no E. coli but were positive for coliform. Well 2 was disinfected again. On 11/29/18 Well 2 tested free of coliform and E. coli. On 11/6/18 five samples were pulled and all five showed coliform present but no E. coli. On 11/7/18 five samples were pulled and showed no coliform or E. coli present. Well 2 was disinfected again. On 11/27/18 five samples were pulled from Well 2 and one tested positive for coliform. On 12/7/18 five samples were pulled with five showing coliform and four showing E. coli. Well 2 was sterilized. On 12/12/18 Well 2 sample pulled showed no contamination. On 12/13/18 five samples were pulled and all were free of contamination. Monthly monitoring since has confirmed Well 2 remains free of contamination. Again, no water has been used from this source since 9/10/18.

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 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.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Floral City Water Association Inc.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the September 2018 sample set we did not test for coliform bacteria on the unfinished raw water from Well 10 or Well 11 and therefore cannot be sure of the quality of your drinking water during that time.

Although all water produced from Well 10 and Well 11 during this period was disinfected and a safe disinfection residual was maintained as required at all times and in all parts of our distribution system, the Florida Department of Environmental Protection requires FCWAI to inform persons who may consume our water.

What should I do?

There is nothing you need to do at this time. The table below lists the contaminant we did not properly test for during September 2018, how often we are supposed to sample for this contaminant, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
Coliform	Monthly	0	September 2018	October 2018

What is being done?

Sampling procedures have been revised to ensure samples are pulled in a timely manner.

For more information, please contact Gary Judd at 352-726-3366 or Floral City Water Association Inc at P.O. Box 597 Floral City, FL 34436.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Floral City Water Association Inc. State Water System ID#: 6090588. For more information contact our office at (352) 726-3366.