

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019


Presented By
City of Fort Myers



City of Palms

PWS ID#: 5360102

Our Mission Continues



We are once again pleased to present our annual water quality report. In accordance with federal standards and regulations, our most recent testing data has been provided. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

Where Does My Water Come From?

The City of Fort Myers's raw water source water is groundwater from the Lower Hawthorn Floridan Aquifer. The Floridan Aquifer is one of the most productive aquifers in the world. Ranging over 100,000 square miles, it underlies all of Florida and parts of southern Alabama, southeastern Georgia, and southern South Carolina. The Floridan portion of the aquifer was developed millions of years ago, when Florida was underwater.

The City began using the Floridan Aquifer in 2002 and currently has 13 wells constructed into the aquifer to an approximate depth of 800 feet. They contain a submersible pump equipped with a variable-frequency drive for pump rate control. The well pumps are controlled remotely by an advanced computer system.

Public Education

The city council holds regular meetings on the first and third Monday of each month beginning at 4:30 p.m. at City Hall. Public input is welcomed at the meetings and can be submitted via email to publiccomment@cityftmyers.com or by phone at 239-321-7040. Public notices are updated weekly for upcoming City Council, City Board and Committee meetings scheduled to occur, and can be found on the City of Fort Myers website at <https://www.cityftmyers.com/1520/City-Meeting-Center>.

Lee County is under new irrigation guidelines set by SFWMD (South Florida Water Management District). The restrictions can be reviewed on the SFWMD website at (<https://www.sfwmd.gov/content/lee-county-irrigation-restrictions>).

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Water Conservation Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So, get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Source Water Assessment (2019)

In 2019, the Florida 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 nineteen potential sources of contamination identified for this system with a low susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

QUESTIONS?

For more information about this report, or for any questions related to your drinking water, please call Jesse Victory, Supervisor, at (239) 321-7654.

Substances That Could Be in 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:

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 U.S. 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 (800) 426-4791.

Information on the Internet

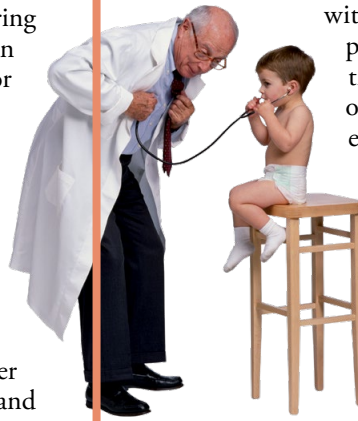
The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Florida Department of Environmental Protection has a Web site (<https://goo.gl/s94yeg>) that provides complete and current information on water issues in Florida, including valuable information about our watershed.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800)

426-4791 or <http://water.epa.gov/drink/hotline>.



How We Treat and Purify Our Drinking Water

The City of Fort Myers Water Treatment Plant uses the reverse-osmosis process to purify brackish (salty) water provided by the Floridan Aquifer. Water from the aquifer is prefiltered twice, first through desanders, then through cartridge filters at the entrance to the water treatment plant. The water is then pumped to the reverse-osmosis membranes, which separate the purified water from its rejected impurities. The purified water is then treated with

chlorine bleach to kill bacteria and other microbes. Before the water leaves the water treatment plant, it is stabilized for potable consumption and corrosion control. Fluoride is also added to prevent tooth decay; although fluoride exists naturally in the source water, it is removed in the reverse-osmosis process. The rejected impurities are flushed away in a separate stream called the concentrate, and disposed through an injection well, drilled approximately 2,500 feet below ground level into a highly saline unusable aquifer.

“ We remain vigilant in delivering the best-quality drinking water ”

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

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) 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 nondetected contaminants, contact Jesse Victory at (239) 321-7654. 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.



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

PRIMARY REGULATED CONTAMINANTS

Inorganic Contaminants

| CONTAMINANT AND UNIT OF MEASUREMENT | DATES OF SAMPLING (MO./YR.) | MCL VIOLATION (YES/NO) | LEVEL DETECTED | RANGE OF RESULTS | MCLG | MCL | LIKELY SOURCE OF CONTAMINATION |
|-------------------------------------|-----------------------------|------------------------|----------------|------------------|------|-----|---|
| Fluoride (ppm) | 02/06/2019 | No | 0.74 | NA | 4 | 4.0 | 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 |
| Sodium (ppm) | 2017 Quarterly | No | 152.5 | 141-152.5 | NA | 160 | Saltwater intrusion, leaching from soil |

STAGE 1 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

| CONTAMINANT AND UNIT OF MEASUREMENT | DATES OF SAMPLING (MO./YR.) | MCL VIOLATION (YES/NO) | LEVEL DETECTED | RANGE OF RESULTS | MRDLG | MRDL | LIKELY SOURCE OF CONTAMINATION |
|-------------------------------------|-----------------------------|------------------------|----------------|------------------|-------|------|---|
| Chlorine (ppm) | 2019 Monthly | No | 2.5 | 1.16 – 3.6 | 4 | 4.0 | Water additive used to control microbes |

STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

| CONTAMINANT AND UNIT OF MEASUREMENT | DATES OF SAMPLING (MO./YR.) | MCL VIOLATION (YES/NO) | LEVEL DETECTED | RANGE OF RESULTS | MCLG | MCL | LIKELY SOURCE OF CONTAMINATION |
|---|-----------------------------|------------------------|----------------|------------------|------|-----|---|
| Haloacetic Acids (five) [HAA5] (ppb) | 08/27/2019 | No | 2.1 | 2.1–2.1 | NA | 60 | By-product of drinking water disinfection |
| TTHM [Total trihalomethanes] (ppb) | 08/27/2019 | No | 10.6 | 10.6–10.6 | NA | 80 | By-product of drinking water disinfection |

| Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community | | | | | | | |
|---|-----------------------------|------------------------|------------------------|--|------|-------------------|--|
| CONTAMINANT AND UNIT OF MEASUREMENT | DATES OF SAMPLING (MO./YR.) | AL EXCEEDANCE (YES/NO) | 90TH PERCENTILE RESULT | NO. OF SAMPLING SITES EXCEEDING THE AL | MCLG | AL (ACTION LEVEL) | LIKELY SOURCE OF CONTAMINATION |
| Copper [tap water] (ppm) | July 2017 | No | 0.0369 | 0 | 1.3 | 1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead [tap water] (ppb) | July 2017 | No | 1.8 | 0 | 0 | 15 | Corrosion of household plumbing systems; erosion of natural deposits |

| UNREGULATED CONTAMINATES | | | | |
|--|-----------------------------|----------------|------------------|--------------------------------|
| CONTAMINANT AND UNIT OF MEASUREMENT | DATES OF SAMPLING (MO./YR.) | LEVEL DETECTED | RANGE OF RESULTS | LIKELY SOURCE OF CONTAMINATION |
| Manganese (ug/L) | 11/2019 | 0.34 | | Unavailable |
| HAA5 (ug/L) | 11/2019 | 2.0 | | Unavailable |
| HAA6Br (ug/L) | 11/2019 | 1.5 | | Unavailable |
| HAA9 (ug/L) | 11/2019 | 2.0 | | Unavailable |
| Bromide (ug/L) (Indicator) | 11/2019 | 49.1 | | Unavailable |
| Total Organic Carbon (ug/L) (Indicator) | 11/2019 | 1070 | | Unavailable |

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

