

WHERE DOES OUR WATER COME FROM?



Grassy Waters Preserve



Lake Mangonia



Clear Lake

The City of West Palm Beach gets its water from rainfall captured and stored in a part of the Everglades Ecosystem known as the Grassy Waters Preserve. This system feeds and sustains Lake Mangonia and Clear Lake. On occasion in past years, the city has been able to supplement its water supply from Lake Okeechobee. The city has designed and implemented several innovative and cost-effective projects to increase the city's water conservation efforts and provide alternative sources of water in times of drought. Efforts include the Renaissance Storm Water Project, Aquifer Storage and Recovery, the C-17 canal pump station, and well-field management. The city acquired approximately 49.2 million gallons of finished drinking water from the Palm Beach County public water system (# 4504393) during 2020.

PROTECT OUR WATERSHED BY SAVING WATER

When you use tap water, you are contributing to the demand on our local water source, the Grassy Waters Preserve. The city carefully manages this natural resource to balance the needs of the ecosystem while also ensuring our water supply. Reducing your water consumption can reduce the burden on this precious resource and protect our watershed while also saving your money!

HERE ARE SOME SIMPLE TIPS TO CONSERVE WATER:

OUTDOORS

- ◆ Do not over water your lawn or add excess fertilizer, especially if you live near Lake Mangonia or Clear Lake.
- ◆ Water lawns in the early morning when temperatures are cooler.
- ◆ Plant natives versus exotics.
- ◆ Ensure sprinkler systems are in good working order. Replace washers, and check that hoses don't leak.
- ◆ Cutting grass more often and at taller blade height will help to maintain precious ground moisture and provide shade to moist ground.
- ◆ Follow Xeriscape techniques by using mulch around garden areas, and use soil amendments like compost. Select plants that require low water for maintenance and water efficiently.
- ◆ Use a blower/broom to remove debris from sidewalks, driveways and patios instead of water from a hose.

INDOORS

- ◆ Take shorter showers. Shut off the water while lathering with soap or shampoo.
- ◆ Hand wash dishes by using two water basins: one to wash and one to rinse dishes. Use automatic dishwashers when they are full.
- ◆ Do not thaw meat by running water, instead thaw in the refrigerator or use the microwave defrost setting.
- ◆ Do not leave the water running while brushing your teeth, washing, or shaving.
- ◆ While waiting for water to become hot, capture the cooler water for plant watering or for microwave/stove heating.
- ◆ Check your home for water leaks. Areas to inspect are toilets, faucets and aerators. Unusually high water meter readings from your utility bill can signal a leak.
- ◆ Select a water faucet or shower head with flow restrictors.

For questions or copies of previous year's reports, please contact the Laboratory Manager at (561) 822-2269.
 To contact the Department of Public Utilities, please dial (561) 822-1060.
 To contact the City of West Palm Beach, please dial (561) 822-1200 (TTY: 800-955-8771).



We welcome your feedback so we can continue to communicate what matters most to you.



WEST PALM BEACH

2020 WATER QUALITY REPORT

CITY OF WEST PALM BEACH



Dear West Palm Beach Public Utilities Customer,

The City of West Palm Beach is pleased to present the 2020 annual Water Quality Report. It contains important information about your drinking water.

I am proud to share that the City of West Palm Beach's public water system continued to operate in compliance with the regulations implemented under the Safe Drinking Water Act in 2020. This report presents the data on our water quality sampling results and explains what these data mean. More information can be obtained from the Environmental Protection Agency (EPA) at www.epa.gov/safewater or by calling the Safe Drinking Water Hotline at (800) 426-4791.

The City of West Palm Beach now has one of the finest water treatment plants in the country. The plant's ultraviolet disinfection system operated continuously during 2020 and, in addition to meeting the existing treatment systems required by regulations, provided an additional barrier of protection.

I invite you to carefully read the next few pages to learn more about the high quality of our drinking water. For public participation, bi-weekly City Commission meetings are held in the City Hall Commission Chamber on Mondays beginning at 5:00 p.m. at 401 Clematis St. in West Palm Beach.

If you have any questions or to contact City Hall, please dial (561) 822-2222 (TTY: 800-955-8771).

Yours in service,
Keith A. James
 MAYOR, CITY OF WEST PALM BEACH

2020 INFORME ANUAL DE CALIDAD DEL AGUA POTABLE

(561) 822-2222 (TTY: 800 955-8771)

VISITE NUESTRO SITIO WEB EN:

wpb.org/WaterReport

Public Water System # 4501559

Published June 2021

HOW WE TURN OUR SOURCE WATER INTO POTABLE WATER

Water from Clear Lake is processed by the Water Treatment Plant through conventional filtration, lime softening, and then an ultraviolet (UV) and chlorination disinfection process that produces a maximum of 47 million gallons of drinking water per day.



SOURCE WATER ASSESSMENT

In 2020 the Florida Department of Environmental Protection (FDEP) performed a source water assessment of our system. The purpose of the assessment was to provide information on any potential sources of contamination in the vicinity of our wells and source water intake. Source water investigation by the FDEP indicated no potential sources of contamination within the assessment area for our system. As a result, the water system intake is considered to have a concern level of "low". The assessment results are available on the FDEP Source Water Assessment and Program Protection Website at: www.dep.state.fl.us/swapp

Search by PWS # 4501559 to view the assessment.

PERIOD COVERED BY REPORT

The City of West Palm Beach 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, 2020. The EPA requires monitoring of over 80 contaminants. The contaminants listed in the table are the only contaminants detected in your drinking water. As you can see, the Report illustrates that our system had no violations. We are proud that your drinking water met all Federal and State requirements.

VULNERABILITY TO CONTAMINANTS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people – such as someone with cancer undergoing chemotherapy, those who have undergone organ transplant, people with HIV/AIDS or other immune system disorders, some elderly, and infants - can be particularly at risk for infections. These

people should seek advice about drinking water from their health care providers. EPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or <http://water.epa.gov/drink/hotline>

How do contaminants get into 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:

- **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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.
- **Radioactive contaminants** which can be naturally occurring or be the result of oil and gas production, and mining activities.

In the test results contained in this report, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we have provided the following definitions:

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

I - Between laboratory detection limit and lab practical quantitation limit.

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.

N/A- Not Applicable

ND- Not Detected: indicates that the substance was not found by laboratory analysis.

Ppb- Parts per billion or micrograms per liter (µg/L): One part by weight of analyte to 1 billion parts by weight of the water sample.

Ppm- Parts per million or milligrams per liter (mg/L): One part by weight of analyte to 1 million parts by weight of the water sample.

RDL- Regulatory Detection Limit: The lowest level of contaminant that is required to be reported.

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

WATER QUALITY TEST RESULTS

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly %/ #	Range of Results	MCLG	MCL	Likely Source of Contamination
Total Coliform	12/20	N	0.7% / 1	N/A	0	0	Naturally found in the environment

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
Arsenic (ppb)	01/20	N	0.53 (I)	ND – 0.53 (I)	0	10	Erosion of natural deposits; runoff from glass and electronics production wastes
Barium (ppm)	01/20	N	0.0067	0.0067	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	01/20	N	0.57	0.45 – 0.57	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
Nitrate (as Nitrogen) (ppm)	01/20	N	0.18	0.18	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	01/20	N	33.7	33.6 – 33.7	NA	160	Salt-water intrusion, leaching from soil, well water

Stage 1 Disinfectants and Disinfection By-Products

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
Total Chlorine Residual (Chloramines)	1/20 to 12/20	N	3.1*	0.2 – 4.5	4	4	Water additive used to control microbes
Chlorine (Free)	7/20	N	2.2*	0.10 – 3.9	4	4	Water additive used to control microbes

Stage 2 Disinfectants and 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)	3/20, 6/20, 9/20 and 12/20	N	15.8 **	9.6 – 17.4**	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total Trihalomethanes] (ppb)	3/20, 6/20, 9/20 and 12/20	N	24.0 **	17.8 – 30.7**	NA	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Exceeded (Y/N)	90th Percent-ile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	10/20	N	0.14	0 out of 101	1.3 ppm	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	10/20	N	1.4	1 out of 101	0	15 ppb	Corrosion of household plumbing systems, erosion of natural deposits

Secondary Contaminants

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
Chloride (ppm)	1/20	N	48.9	34.7 – 48.9	250 ppm	250 ppm	Natural occurrence from soil leaching
Sulfate (ppm)	1/20	N	32.5	25.2 – 32.5	250 ppm	250 ppm	Natural occurrence from soil leaching
Total Dissolved Solids (TDS) (ppm)	1/20	N	294	261 – 294	500 ppm	500 ppm	Natural occurrence from soil leaching
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	TT Violation Y/N	Lowest Running Annual Average, Computed Quarterly, of Monthly Removal Ratios	Range of Monthly Removal Ratios	MCLG	MCL	Likely Source of Contamination
Total organic carbon (ratio)	1/20-12/20	N	1.2	1.1 – 1.2	NA	TT	Naturally present in the environment

Unregulated 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
Total Organic Carbon (Source Water) (ppm)	3/20	~	11.4	11.4	~	~	Naturally present in the environment
Bromide (Source Water) (ppb)	3/20	~	135	135	~	~	By-product of drinking water disinfection
HAA 5 (ppb)	3/20	~	12.2	9.7 – 16.8	~	~	By-product of drinking water disinfection
HAA 6 Br (ppb)	3/20	~	10.7	8.9 – 14.8	~	~	By-product of drinking water disinfection
HAA 9 (ppb)	3/20	~	20.6	16.8 – 28.2	~	~	By-product of drinking water disinfection

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 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 Information Hotline at (800) 426-4791.

*The results in the column indicating "Highest Level Detected" for chloramines/free chlorine is "the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected". The range of results are the highest and lowest result from the individual sampling sites. Compliance with MCL standards are based on monthly averages.

** The results in the column indicating "Level Detected" for TTHM and HAA5 are the highest LRAA. The range of results are the highest and lowest result from the individual sampling sites. Compliance with MCL standards are based on quarterly averages.

Important Information About our Drinking Water

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 City of West Palm Beach is responsible for providing high quality drinking water, but it 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 Information Hotline or at <http://www.epa.gov/safewater/lead>.

City of West Palm Beach Public Utilities Department completed monitoring for unregulated contaminants (UCs) 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, please call the Safe Drinking Water Hotline at (800) 426-4791.