

2023 ANNUAL DRINKING WATER QUALITY REPORT



The City of Pembroke Pines is pleased to provide you with this year's Annual Water Quality Report, based on data compiled from water quality sampling January 1 through December 31, 2023. We want to keep you informed about the quality of the water and services we have delivered to you over the past year. Our goal is and always has been, to provide you with a safe and dependable supply of drinking water. The City of Pembroke Pines strives to create a community with a high quality of life, where citizens can live, work and raise their families safely. As such, we want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. **We are pleased to report that our drinking water meets all federal and state requirements.**

WHERE YOUR WATER COMES FROM

Our water source is ground water wells drawing from the Biscayne Aquifer between 90 and 144 feet, which is then softened, filtered, and disinfected. Fluoride is added to the water for dental health purposes, as required in Broward County.

ADDITIONAL HEALTH INFORMATION

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.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

ABOUT LEAD

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 Pembroke Pines 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 (800)426-4791 or at <http://www.epa.gov/safewater/lead>.

HOW WE ENSURE YOUR DRINKING WATER IS SAFE

We routinely monitor 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, 2023. Data obtained before January 1, 2023 and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

As authorized and approved by the U.S. Environmental Protection Agency, the State of Florida 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. As a result, some of our data is more than one year old.

SOURCE WATER ASSESSMENT PLAN

In 2023, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system and a search of the data source indicated 10 sources of contamination with low to moderate concern. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at <https://fldep.dep.state.fl.us/swapp/>.

HOW TO REACH US

If you have any questions about this report or about your water utility, please contact us at (954) 518-9000. We encourage our valued customers to be informed about their water utility.

The Pembroke Pines City Commission meets at 7:00 pm every first and third Wednesday of the month (except for July).

For Customers with Special Health Concerns

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.



How to Read the Tables

You may find unfamiliar terms and abbreviations in the water quality analysis table. To help you understand these terms, please see the following definitions.

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

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.

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

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 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.

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.

RAA: Means running annual average.

N/A: Means not applicable.

ppm: Parts per million or milligrams per liter (mg/L) is one part by weight of analyte to one million parts by weight of the water sample.

ppb: Parts per billion or micrograms per liter (µg/L) is one part by weight of analyte to one billion parts by weight of the water sample.

2023 Water Quality Table – PWS No. 4061083

Microbiological Contaminants						
Contaminant	Dates of sampling (mo./yr.)	MCL Violation Y/N	Total Number of Positive Samples for the Year	MCLG	MCL	Likely Source of Contamination
E. Coli	Monthly 2023	Y*	3	0	Routine and repeat samples are total coliform positive and either is E. coli positive, or system fails to take repeat samples following E. coli positive routine sample or system fails to analyze total coliform positive repeat sample for E. coli	Human and animal fecal waste

*We had an E. coli positive repeat sample following a total coliform positive routine sample. We found E. coli bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any that were found during these assessments. We were required to complete a Level 2 assessment because we found E. coli in our water system. In addition, we were required to take 3 corrective actions and we completed all 3 of these actions.

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
Chloramine (ppm)	Monthly 2023	N	3.1 (RAA)	0.6 - 4.3	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Quarterly 2023	N	23.0*	14 - 28	N/A	MCL = 60	By-product of drinking water disinfection
TTHM (Total Trihalomethanes) (ppb)	Quarterly 2023	N	27.3*	18 - 39	N/A	MCL = 80	By-product of drinking water disinfection

*For disinfection by-products, the level detected is the highest Locational Running Annual Average (LRAA). The range of results is the range of results of all the individual samples collected during the past year.

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
Antimony (ppb)	02/2023	N	0.09	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	02/2023	N	0.7	N/A	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	02/2023	N	0.003	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	Daily 2023	N	0.7	0.2 - 0.9	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 (ppm)	02/2023	N	0.12	N/A	10	10	Erosion of natural deposits; runoff from fertilizer use
Nitrite (ppm)	02/2023	N	0.05	N/A	1	1	Erosion of natural deposits; runoff from fertilizer use
Sodium (ppm)	02/2023	N	16.4	N/A	N/A	160	Saltwater intrusion, leaching from soil

LEAD AND COPPER (TAP WATER)							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	Sites above the AL	MCLG	AL	Likely Source of Contamination

Copper (tap water) (ppm)	7/2021	N	0.0154	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	7/2021	N	1	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

RADIOACTIVE 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
Uranium (ug/L)	02/2023	N	0.03	N/A	0	30	Erosion of natural deposits

2023 VIOLATION

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system violated a federal and state water quality standard for E. coli in April 2023 when we had an E. coli positive repeat sample following a total coliform positive routine sample. 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.

To correct this situation, we conducted a Level 2 Assessment, removed bushes away from the sample station, re-trained our sampling staff, and resampled the location. The resampling was E coli negative.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Availability of Monitoring Data for Unregulated Contaminants for the City of Pembroke Pines

Our water system has sampled for a series of unregulated contaminants from March to September 2023. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. In anticipation that some of these contaminants may become regulated, the City is conducting a study to determine appropriate treatment to remove these contaminants. The results of detected contaminants are listed below. As our customers, you have a right to know that this data is available. If you are interested in examining the results further, please contact our customer service department at (954) 518-9000

Contaminant and Unit of Measurement	Average of Results	Range of Results
Perfluorobutanoic acid (ug/L)	0.0107	0.0092-0.0122
Perfluoropentanoic acid (ug/L)	0.0208	0.0177-0.0239
Perfluorohexanoic acid (ug/L)	0.0159	0.0134-0.0184
Perfluoroheptanoic acid (ug/L)	0.0084	0.0067-0.010
Perfluorooctanoic acid (ug/L)	0.0123	0.0102-0.0144
Perfluorobutanesulfonic acid (ug/L)	0.0085	0.0071-0.0098
Perfluorohexanesulfonic acid (ug/L)	0.0076	0.0061-0.0091
Perfluorooctanesulfonic acid (ug/L)	0.0290	0.0233-0.0347

This notice is being sent to you by the City of Pembroke Pines. State Water System ID#: 4061083.

Date distributed:

PUBLIC NOTICE

This report available at www.ppines.com; City Hall, Water Utilities Customer Service Office, City Connect Newsletter and will only be mailed to customers upon request.