

2017 ANNUAL DRINKING WATER QUALITY REPORT



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Este reporte contiene información muy importante sobre su agua potable. Tradúzcalo o hable con un amigo que lo entienda bien. Usted también puede encontrar este artículo en español <http://www.ppines.com> o llame (954) 518-9000.

We're pleased to provide you with this year's Annual Water Quality Report, based on data compiled from water-quality sampling throughout 2017. We want to keep you informed about the quality water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you 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 committed to maintaining the quality of your water. If you have any questions or concerns about the information provided in

this report, please call us at any of the numbers listed. This report shows our water quality results and what they mean.

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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.

Locational Running Annual Average (LRAA): The average of sample results 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.

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 ($\mu\text{g/L}$) is one part by weight of analyte to one billion parts by weight of the water sample.

pCi/L: picocurie per liter is a measure of the radioactivity in water.

WHERE YOUR WATER COMES FROM

Our water source is ground water wells drawing from the Biscayne Aquifer which is then softened, filtered, and chlorinated for disinfection. Fluoride is added to the water for dental health purposes.

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, 2017. Data obtained before January 1, 2017, 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 2017, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system and a search of the data source indicated seven sources of contamination with low to moderate concern.

The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

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>.

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 dis-

charges, 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.

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 p.m. every first and third Wednesday of the month (except for July).



2017 Water Quality Table – PWS No. 4061083

MICROBIOLOGICAL CONTAMINANTS							
Contaminant	Dates of sampling (mo./yr.)	MCL Violation Y/N	Total Number of Positives for the Year	MCLG	MCL	Likely Source of Contamination	
E. Coli	Monthly 2017	N	1*	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

*In 2017, a routine bacteriological sample tested positive for E. coli. Three repeat samples were collected to verify the presence of E. coli after the positive result. All repeat samples tested negative or absent of E.coli.

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 2017	N	3.4	0.6 – 5.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Quarterly 2017	N	58	15 – 59	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total Trihalomethanes] (ppb)	Quarterly 2017	Y	92.7*	18.3–66.5	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.

Highest LRAA was at Monitoring Point 3 (MP3) located at Rose Price Park. Refer to the Violations section of the report for more information on MP3.

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)	02/2017	N	0.58	N/A	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	02/2017	N	0.003	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	Daily 2017	N	0.5	0.2-0.7	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)	02/2017	N	15	N/A	N/A	160	Salt water 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)	11/2017 12/2017	N	0.05	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	11/2017 12/2017	N	2.3	1	0	15	Corrosion of household plumbing systems, erosion of natural deposits

VIOLATIONS

Maximum Contaminant Level Violation - We routinely monitor for the presence of drinking water contaminants. Testing results from 1st, 2nd, & 3rd quarter of 2017 showed that our water system exceeded the MCL for TTHM of 80 parts per billion (ppb) for one of the six approved sampling site locations. All other sample locations across the City were within the regulatory limits. The highest LRAA of 92.70 ppb occurred at the Rose Price Park monitoring location. All other sample locations across the City were within the regulatory limits.

Trihalomethanes are a group of volatile organic compounds formed when chlorine, added to the water during the treatment process for disinfection, reacts with natu-

rally occurring organic matter in the water. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidney, or central nervous systems and may have an increased risk of getting cancer.

Reporting Violation - Due to administrative oversight in 2017, our office failed to submit several reports required under the Safe Drinking Water Act by the due date. This violation has no impact on the quality of the water our customers received, and it posed no risk to public health.

The Pembroke Pines water system has implemented a tracking system with report due dates entered to ensure reports are submitted by the due date.

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.