

Este reporte contiene información muy importante sobre su agua potable. Tradúscalo o hable con un amigo quien lo entienda bien. Usted puede también encontrar este artículo en español <http://www.ppines.com> o llamar (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 2016. 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.

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, 2016. Data obtained before January 1, 2016, 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 2016, the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data source indicated seven sources of contamination with low 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 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. 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.
- (B) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (C) 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.
- (D) 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 7:00 pm every first and third Wednesday of the month (except for July).



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.

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 systems to identify distribution system locations with high concentration 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.

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

ND: Means not detected and indicates that the substance was not found by laboratory analysis.

NA: 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.

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

Table Notes:

- A. Results in the Level Detected column for inorganic contaminants, are the highest detected level at any sampling point.
- B. For chloramines, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year. For Stage 2 haloacetic acids or TTHM, the level detected is the highest LRAA, computed quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.



| 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 |
| Chloramine (ppm) | Monthly 2016 | N | 3.3 | 0.3 – 4.7 | MRDLG = 4 | MRDL = 4.0 | Water additive used to control microbes |
| Haloacetic Acids (five) (HAA5) (ppb) | Quarterly 2016 | N | 57.9 | 19.8 – 71.3 | NA | MCL = 60 | By-product of drinking water disinfection |
| TTHM [Total Trihalomethanes] (ppb) | Quarterly 2016 | Y | 88.4 (at MP3) | 23.1–172.3 | NA | MCL = 80 | By-product of drinking water disinfection |

| 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) | 02/2014 | N | 0.74 | N/A | 0 | 10 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| Barium (ppm) | 02/2014 | N | 0.0036 | N/A | 2 | 2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Fluoride (ppm) | Daily 2016 | N | 0.51 | 0.18-0.92 | 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) | 02/2014 | N | 15 | N/A | N/A | 160 | Salt water intrusion, leaching from soil |

| ORGANIC 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 |
| Dichloromethane (ppb) | 12/16 | N | 0.47 | ND - 0.47 | 0 | 5 | Discharge from pharmaceutical and chemical factories. |

| LEAD AND COPPER (TAP WATER) | | | | | | | |
|-------------------------------------|-----------------------------|------------------|------------------------|------------------|------|-------------------|--|
| Contaminant and Unit of Measurement | Dates of sampling (mo./yr.) | AL Violation Y/N | 90th Percentile Result | Exceeding the AL | MCLG | AL (Action Level) | Likely Source of Contamination |
| Copper (tap water) (ppm) | 08/2015 | N | 0.13 | 0 | 1.3 | 1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (tap water) (ppb) | 08/2015 | N | 2.9 | 0 | 0 | 15 | Corrosion of household plumbing systems, erosion of natural deposits |

VIOLATIONS

Monitoring Violation:

We routinely monitor for the presence of drinking water contaminants. Testing results from 4th quarter of 2016 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 representative of the entire water system. The November 2016 averaged sample result at the Rose Price Park was 88.42 parts per billion (ppb). 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 naturally 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.

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, person 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.