

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 Environmental Protection Agency's **Safe Drinking Water Hotline at 1-800-426-4791**.

For Customer 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 (1-800-426-4791)**.

SOURCE WATER ASSESSMENT PLAN

In 2014, the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated one potential source of contamination with a moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp

HOW TO REACH US

If you have any questions about this report or concerning your water utility, please contact us at (954) 986-5011. We encourage our valued customer to be informed about their water utility.

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>.



CITY OF PEMBROKE PINES 2014 ANNUAL DRINKING WATER QUALITY REPORT PWS ID # 4061083

Este reporte contiene información muy importante sobre su agua potable. Tradúscalo o hable con un amigo quien lo entienda bien. (954)450-9600

We're pleased to provide you with this year's Annual Water Quality Report. 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.

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 ensuring the quality of your water. If you have any questions or concerns about the information provided in this report, please feel free to call 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, 2014. Data obtained before January 1, 2014, 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 EPA, the State 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 from one year to another. As a result some of our data is more than one year old.

How to Read the Table

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided 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.

Maximum contaminant level of 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 (µg/L) is one part by weight of analyte to one billion parts by weight of the water sample.

pCi/L: picocuries 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 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.

MICROBIOLOGICAL CONTAMINANTS						
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage	MCL G	MCL	Likely Source of Contamination
Total Coliform Bacteria (% positive samples/month)	01/14 – 12/14	Y	19.2	0	*	Naturally present in the environment
Fecal coliform/E. Coli – in distribution system (positive sample)	August 2014	Y**	1 positive sample	0	0	Human and animal fecal waste

* MCL - Presence of coliform bacteria in >5.0% of monthly samples

**A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.

INORGANIC CONTAMINANTS							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCL G	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)	02/2014	N	0.72	N/A	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

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 2014	N	3.97	3.0 – 4.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAAs) (ppb)	Quarterly 2014	N	54.0	1.4 - 50.7	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Quarterly 2014	N	44.4	30.2 - 76.3	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 Violation Y/N	90th Percentile Result	Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	08/2012	N	0.064	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/2012	N	2.0	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Unregulated Contaminants Monitoring Rule (UMCR3)				
Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MRL*	Amount Detected	Range of Results
Perfluoroheptanoic acid (ppb)	10/2014	0.01	0.0069	NA
Perfluorooctanesulfonic acid (ppb)	10/2014	0.04	0.038	NA
Perfluorooctanoic acid (ppb)	10/2014	0.02	0.012	NA
Chromium (ppb)	10/2014	0.2	0.23	0.23 – 0.23
Molybdenum (ppb)	10/2014	1	1.35	1.3 - 1.4
Strontium (ppb)	10/2014	0.3	254	253 – 255
Vanadium (ppb)	10/2014	0.2	0.88	0.83 – 0.93
Hexavalent Chromium (ppb)	10/2014	0.03	0.105	0.10 – 0.11
Chlorate	10/2014	20	141	ND - 261
1,4-Dioxane (p-Dioxane) (ppb)	10/2014	0.07	0.062	NA
Chlorodifluoromethane (ppb)	10/2014	0.08	0.36	NA

MRL: Minimum Reporting Limit

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted. A maximum contaminant level (MCL) for these substances has not been established by either state or federal regulations, nor has mandatory health effects language.

Violations and Exceedances

Total Coliform and Acute MCL Bacteriological Violation:

Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

In August of 2014, we collected 193 total coliforms samples in which 19.2% of these samples tested positive for coliform bacteria. The drinking water standard is that no more than 5.0% of the monthly distribution samples collected may test positive for total coliform. During the resampling of the positive total coliform sample locations, one sample tested positive for coliform bacteria and E. coli bacteria. This event triggered an acute maximum contaminant level violation. As required by regulation, we took additional distribution system samples and tested for both coliform and E.coli. Further testing confirmed the bacteria were no longer present in the water distribution system. Public Notification was completed on September 23, 2014.

Public Notification Violation:

Due to the events mentioned above, per regulation a Tier 1 Public Notification must be delivered to the customers of the water system that are affected within 24 hours. We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.