

2015

Annual Drinking Water Quality Report

CITY OF POMPANO BEACH



Design

SOURCE WATER ASSESSMENT AND PROTECTION PROGRAM

In order to ensure that your drinking water is safe, not just at the tap, but at its source, the Florida Department of Environmental Protection (FDEP) conducts potential contamination studies of all source water. These studies are conducted by evaluating the travel time to the source water (5 years in our case), the hydrology of the area, and determining what businesses or operations use possible contaminants within that area such as dry cleaners, auto repair shops and gas stations. The contaminant susceptibility levels only describe potential contamination due to nearby activity and is not based on monitoring data. The assessment is conducted to provide information about any potential sources of contamination in the vicinity of our wells. The 2015 assessment identifies 18 potential sources of contamination, from low to moderate high susceptibility levels, for 25 assessed wells.

The Source Water Assessment potential contaminant information, in conjunction with our own continuous source water monitoring program, which tests for organics, nutrients, metals and microbiological parameters quarterly ensures that our source water remains safe. You may review the Source Water Assessment results on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

ADDITIONAL INFORMATION

Please DO NOT FLUSH your unused/unwanted medications down toilets or sink drains. More information is available at <http://www.dep.state.fl.us/waste/categories/medications/pages/disposal.htm>. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

If you have any questions about this report or concerning your water, please contact A. Randolph Brown, Utilities Director at 954-545-7043 or 1205 NE 5th Avenue, Pompano Beach, Florida 33060. For questions regarding your water bill, call Customer Service at 954 786 4637.

The Pompano Beach City Commission conducts regular city commission meetings on the 2nd and 4th Tuesday of every month at 6:00 p.m. To receive meeting schedules and agendas, contact City Hall at 954-786-4600 or visit us on the web at www.pompanobeachfl.gov.

VULNERABLE POPULATION INFORMATION

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 1-800-426-4791.



WHERE DOES OUR DRINKING WATER COME FROM?

Our water source is the Biscayne Aquifer. This aquifer is an underground geologic formation where water is stored, extending from a few feet to approximately 200 feet below the land surface. The water is pumped from the aquifer to the land surface at two well field sites and is transported to the water treatment plant. At the plant, the water is membrane/lime-softened, filtered, fluoridated and disinfected prior to entering the water distribution system.





CITY OF POMPANO BEACH WATER QUALITY SAFEGUARDS

The City of Pompano Beach always puts our water quality and safety ahead of everything else. Here are some of the steps we have taken to ensure this:

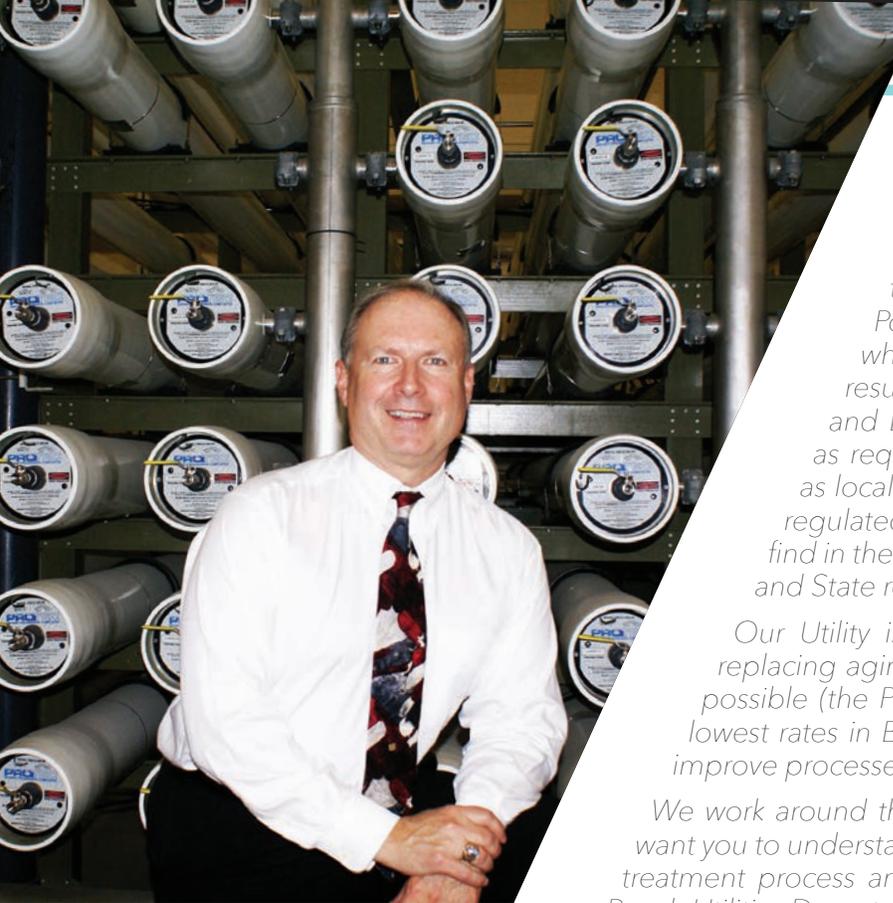
- Conducted Lead and Copper testing at customer homes with all of the sites passing.
- Testing the water at the Water Treatment Plant to make sure that the water is stable and not corrosive.
- Testing the water annually for all 80 drinking water compounds.
- Our Utilities Laboratory chemists and analysts all have four-year degrees.
- Testing the water daily for a series of water quality tests.
- Testing different locations within the Water Treatment Plant every two hours.
- Our Water Plant Operators are State licensed and have passed extensive study, training and a State examination.
- Online and automatic analyzers for multiple test parameters continually monitor the water throughout the Treatment Plant and as the water prepares to leave the Plant.
- Automatic alarm if required levels are exceeded at critical locations.
- Testing the water monthly at 90 locations within the water distribution system.
- Collecting samples monthly within the water distribution system for additional water quality tests on a rotating basis.
- Seven automatic analyzers in different sections of the City water distribution system continuously monitor important water quality indicators.
- Testing daily at the farthest point of the water distribution system to ensure that disinfection and pH levels at the extremities of the system are within limits.
- Source water used to make drinking water is tested quarterly for bacterial levels and annually for water quality.
- The State has designated our City Water Treatment Plant as having demonstrated the ability to reduce pathogens in water by 99.99%.
- Inspections of our Water Plant, Wells and procedures annually by the Broward County Health Department to make sure that all regulatory requirements are being met.
- Detailed multi-day inspections and audits of our Water Plant, Wells and procedures every three years by the Broward County Health Department.
- Systematic and strict compliance program to ensure that all regulations and best practices are implemented and maintained.



ADDITIONAL INFORMATION

The Utilities Department is a partner with WaterSense, a conservation program and information clearing house sponsored through the Environmental Protection Agency. This program assists the City in determining the best technologies and education strategies to implement in reaching our water conservation goals.

For more ideas on water conservation, visit us online at www.pompanobeachfl.gov/utilities and the WaterSense website at www.epa.gov/watersense.



Dear Customers,

We are proud to provide you with the 2015 Annual Drinking Water Quality Report. We would like to keep you informed about the high quality drinking water that we delivered to our Pompano Beach, Lighthouse Point and Lauderdale-by-the-Sea customers. Except where indicated otherwise, this report is based on the results of our water monitoring between January 1, 2015 and December 31, 2015. With over 80 compounds tested as required by the Environmental Protection Agency, as well as local and state agencies, the compounds listed are the only regulated compounds detected in the drinking water. As you will find in the report, your drinking water meets or exceeds all Federal and State requirements.

Our Utility is 90 years old and we are constantly restoring and replacing aging infrastructure. In order to keep water costs as low as possible (the Pompano Beach Water Treatment Plant has one of the lowest rates in Broward County), we work hard to eliminate waste and improve processes to meet your needs.

We work around the clock to provide top quality water to every tap. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. The City of Pompano Beach Utilities Department is committed to insuring that we deliver safe, great-tasting water.

We enjoy taking advantage of this Federal reporting requirement to provide you with additional information regarding our Utility. Thank you for allowing us to serve you.

Sincerely,

A. Randolph Brown
Utilities Director

WATER QUALITY TESTING RESULTS 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:

Maximum Contaminant Level or 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.

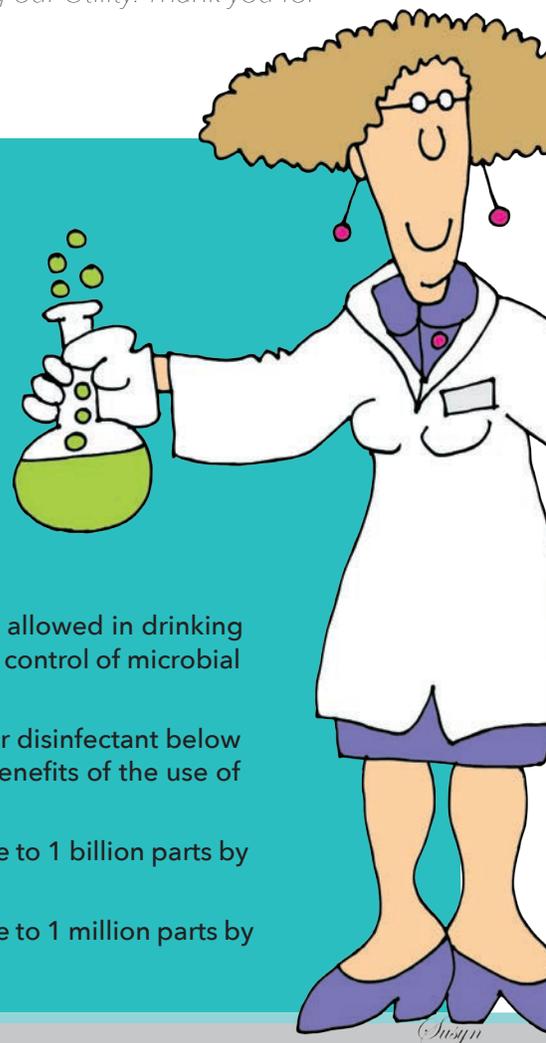
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g}/\text{l}$): One part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/l): One part by weight of analyte to 1 million parts by weight of the water sample.



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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)	4/2015, 5/2015	N	1.8	1.3-1.8	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	4/2015, 5/2015	N	0.0042	0.0036-0.0042	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	01/01/2015-12/31/2015	N	0.77	0.10-0.77	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)	4/2015, 5/2015	N	0.77	0.54-0.77	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	4/2015, 5/2015	N	26.8	23.6-26.8	N/A	160	Salt water intrusion, leaching from soil

MICROBIOLOGICAL CONTAMINANTS

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Highest Monthly Percentage/ Number	MCLG	MCL	Likely Source of Contamination
1. Total Coliform Bacteria (positive samples)	1/1/15-12/31/15	N	0%	0		For systems collecting at least 40 samples per month: presence of coliform bacteria in >5% of monthly samples. Naturally present in the environment

WHY ARE CONTAMINANTS IN 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:

- (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.

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 Pompano Beach 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>.

STAGE 1 DISINFECTANTS

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.

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MRDLG	MRDL	Likely Source of Contamination
Chlorine and Chloramines (ppm)	01/2015 through 12/2015	N	3.2	0.61-4.16	4	4.0	Water additive used to control microbes

STAGE 2 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
Haloacetic Acids (HAA5) (ppb)	1/15, 4/15, 7/15, 10/15	N	26.41	12.9-22.2	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	1/15, 4/15, 7/15, 10/15	N	36.35	20.5-40.7	N/A	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)	90 th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm) No homes exceeding AL	7/14	N	0.097	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppm) No homes exceeding AL	7/14	N	0.0041	0	0	0.015	Corrosion of household plumbing systems; erosion of natural deposits