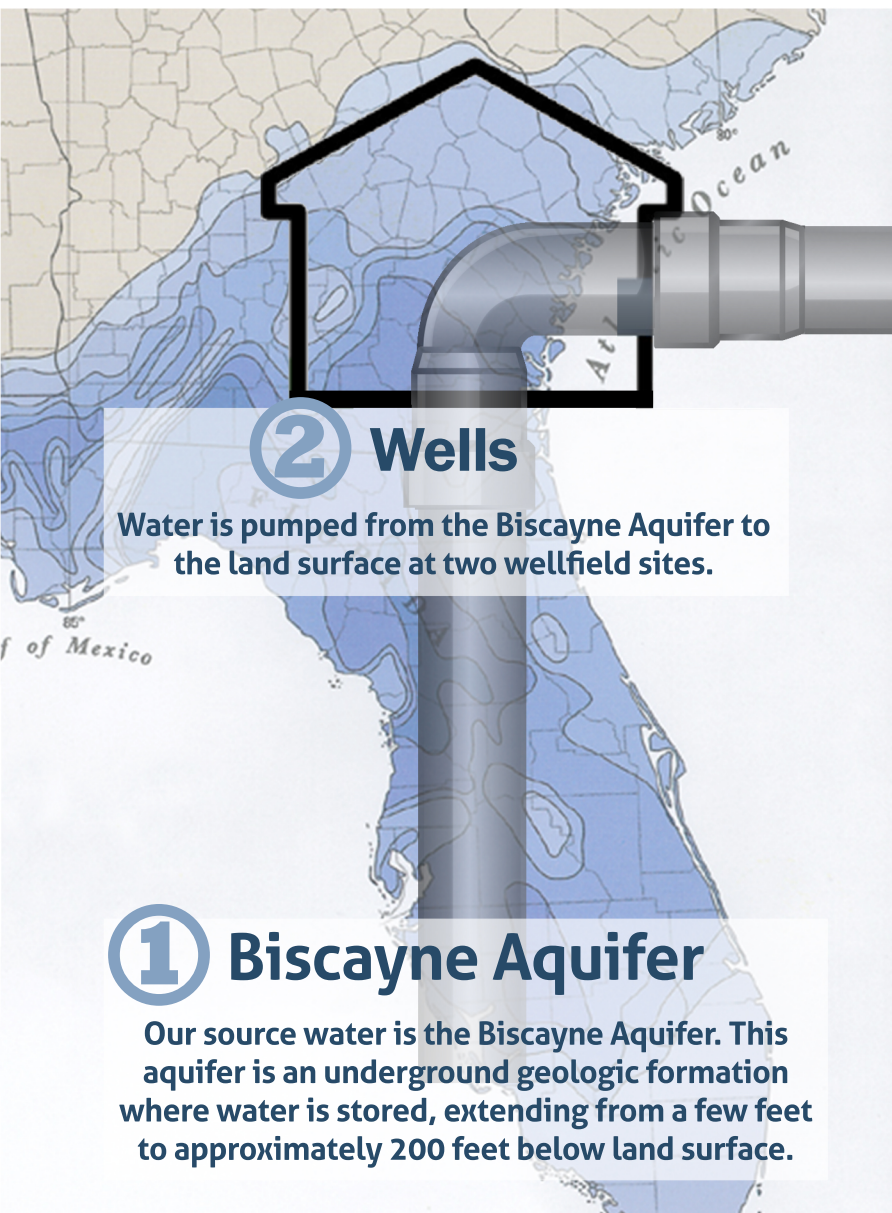


City of Pompano Beach

2019

Annual Drinking Water Quality Report



② Wells

Water is pumped from the Biscayne Aquifer to the land surface at two wellfield sites.

① Biscayne Aquifer

Our source water 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 land surface.



③ Water Treatment Plant

Water is pumped from the wellfield sites to our Water Treatment Plant. At the plant, water is membrane and lime-softened, filtered, fluoridated, optimized for corrosion control, and disinfected.



Dear Customers,

We are proud to provide you with the 2019 Annual Drinking Water Quality Report. This report provides us with an opportunity 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, 2019 and December 31, 2019. 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 94 years old. Its efficiency is a testament to our investment in maintenance, restoration and technology upgrades. The City of Pompano Beach has one of the lowest water rates in Broward County. To keep water costs as low as possible, we have a continuous improvement process that focuses on efficiency, the elimination of waste and improved processes—all to meet your needs.

Our licensed staff works tirelessly 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 delivering safe, great-tasting water.

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

Sincerely,

A. Randolph Brown
Utilities Director

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.

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>.

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.

Source Water Assessment and Protection Program

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 2019 assessment identifies 37 potential sources of contamination, from low to high susceptibility levels, from 24 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 <https://fldep.dep.state.fl.us/swapp>.

Water Quality Testing Results Table

In the data tables, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we have provided the following definitions:

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 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.

Minimum Reporting Level (MRL): EPA has established UCMR 4 minimum reporting levels based on the capability of the analytical method, not based on a level as "significant" or "harmful." The detection of a UCMR 4 Contaminant does not represent cause for concern, in and of itself.

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.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per billion (ppb) or Micrograms per liter (µg/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.

Level 1 Assessment: A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Inorganic Contaminants							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation (Y/N)	MCLG	MCL	Level Detected	Range of Results	Likely Source of Contamination
Fluoride (ppm)	01/01/2019-12/31/2019	N	4	4	0.79	0.20-0.79	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum level of 0.7 ppm
Nitrate (as N) (ppm)	05/2019, 07/2019	N	10	10	0.68	0.41-0.68	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium (ppm)	05/2019, 07/2019	N	2	2	0.0042	0.0040-0.0042	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Sodium (ppm)	05/2019, 07/2019	N	N/A	160	33.7	27.7-33.7	Salt water intrusion, leaching from soil
Arsenic (ppb)	05/2019, 07/2019	N	0	10	2	1.7-2.0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	TT Violation	MCLG	Level 1 TT Trigger	Result	Likely Source of Contamination
Total Coliform Bacteria (positive samples)	01/01/2019-12/31/2019	Y	N/A	For systems collecting at least 40 samples per month: presence of coliform bacteria in >5% of monthly samples	Positive	Naturally present in the environment

Stage 1 Disinfectants and Disinfection By-Products

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)	MRDLG	MRDL	Level Detected	Range of Results	Likely Source of Contamination
Chlorine and Chloramines (ppm)	01/01/2019-12/31/2019	N	4	4	3.04	0.61-3.99	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)	MCLG	MCL	Level Detected	Range of Results	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	02/2019, 05/2019, 08/2019, 11/2019	N	N/A	60	39.2	20.4-54.4	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	02/2019, 05/2019, 08/2019, 11/2019	N	N/A	80	61.7	23.7-77.8	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)	MCLG	AL (Action Level)	90th Percentile Result	No. of Sampling Sites Exceeding AL	Likely Source of Contamination
Copper (tap water) (ppm)	06/2017, 7/2017	N	1.3	1.3	0.0496	0 (No homes exceeding AL)	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	06/2017, 7/2017	N	0	15	2.1	0 (No homes exceeding AL)	Corrosion of household plumbing systems; erosion of natural deposits

Synthetic Organic Contaminants including Pesticides and Herbicides

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation (Y/N)	MCLG	MCL	Level Detected	Range of Results	Likely Source of Contamination
Dalapon (ppb)	03/2019, 05/2019, 06/2019, 09/2019, 12/2019	N	200	200	1.6	0.89-1.6	Runoff from herbicide used on right-of-ways

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that another potentially harmful waterborne pathogen may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in the water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. No corrective action was required besides conducting the Level 1 assessment.

City of Pompano Beach Water Quality Safeguards

The City of Pompano Beach always puts our water quality and public health first. Here are some of the steps we have taken to ensure this:

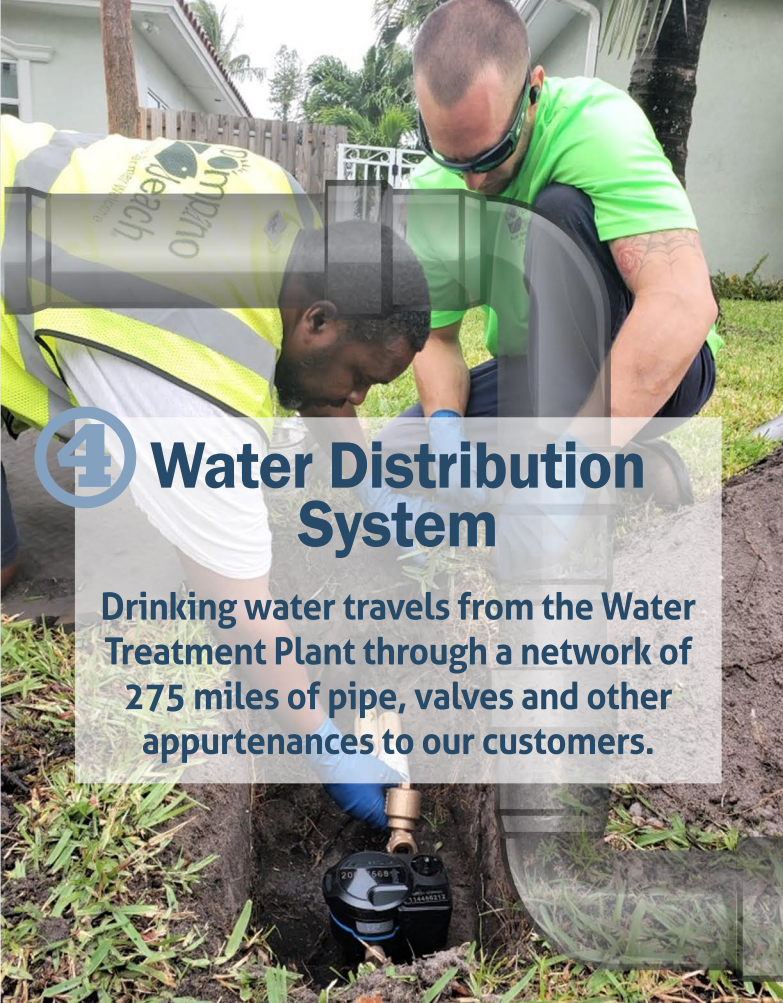
- Conducted Lead and Copper testing at customer homes, with all sites passing.
- Hourly, daily, monthly, and annual testing conducted to ensure that all water quality parameters are continually met throughout the system, including at our source water, at the Water Treatment Plant and at the furthest point in the water distribution system.
- Sophisticated Supervisory Control and Data Acquisition (SCADA) system continually monitors all plant processes and notifies operators if any parameters are approaching permitted limits.
- Online analyzers, approved by EPA, continually monitor the water throughout the Treatment Plant and as the water leaves the Plant.
- Six automatic analyzers and thirty-two pressure transducers located in different sections of the water distribution system continually monitor chlorine residuals and pressure.
- The State has designated our Water Treatment Plant as having demonstrated the ability to reduce pathogens in water by 99.99%.
- The Utilities Department has a robust Capital Improvement Plan (CIP), Capital Replacement Plan (CRP), and operation and maintenance budgets to demonstrate our commitment to investing in our infrastructure to ensure sustainability.
- Comprehensive tri-annual inspections of our Water Treatment Plant, wells and procedures conducted by the Florida Department of Environmental Protection (FDEP) to ensure we meet all regulatory requirements.

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 at 1-800-426-4791.

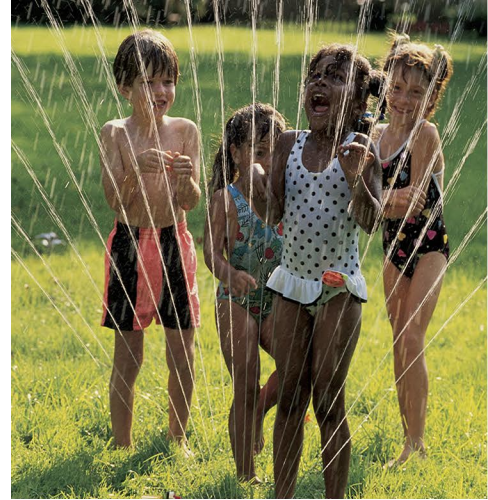
Fourth Unregulated Contaminant Monitoring Rule (UCMR 4)					
Contaminant and Unit of measurement (Entry Point)	Dates of Sampling (mo/yr)	Level Detected	Range	MRL	Likely source of contamination
Manganese (ppb)	09/2018, 03/2019	0.47	0.43- 0.51	0.4	Manganese is a naturally-occurring element that can be found ubiquitously in the air, soil, and water. Manganese is also an essential nutrient for humans and animals. Manganese is used principally in the manufacture of iron and steel alloys, manganese compounds, and as an ingredient in various products.
Contaminant and Unit of measurement (Distribution 1)	Dates of Sampling (mo/yr)	Level Detected	Range	MRL	Likely source of contamination
HAA6Br (ppb)	09/2018, 03/2019	19	12-25	N/A	Disinfectant byproducts that are formed when disinfectants, such as chlorine or chloramine, are used to treat water and react with naturally occurring organic and inorganic matter present in source waters.
HAA9 (ppb)	09/2018, 03/2019	41	40- 41	N/A	Disinfectant byproducts that are formed when disinfectants, such as chlorine or chloramine, are used to treat water and react with naturally occurring organic and inorganic matter present in source waters.
Contaminant and Unit of measurement (Distribution 2)	Dates of Sampling (mo/yr)	Level Detected	Range	MRL	Likely source of contamination
HAA6Br (ppb)	09/2018, 03/2019	13	12- 13	N/A	Disinfectant byproducts that are formed when disinfectants, such as chlorine or chloramine, are used to treat water and react with naturally occurring organic and inorganic matter present in source waters.
HAA9 (ppb)	09/2018, 03/2019	34	29- 39	N/A	Disinfectant byproducts that are formed when disinfectants, such as chlorine or chloramine, are used to treat water and react with naturally occurring organic and inorganic matter present in source waters.
Contaminant and Unit of measurement (Distribution 3)	Dates of Sampling (mo/yr)	Level Detected	Range	MRL	Likely source of contamination
HAA6Br (ppb)	09/2018, 03/2019	15	12-17	N/A	Disinfectant byproducts that are formed when disinfectants, such as chlorine or chloramine, are used to treat water and react with naturally occurring organic and inorganic matter present in source waters.
HAA9 (ppb)	09/2018, 03/2019	39	33- 44	N/A	Disinfectant byproducts that are formed when disinfectants, such as chlorine or chloramine, are used to treat water and react with naturally occurring organic and inorganic matter present in source waters.

Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur or whether the Agency should consider regulating those contaminants in the future.



④ Water Distribution System

Drinking water travels from the Water Treatment Plant through a network of 275 miles of pipe, valves and other appurtenances to our customers.



⑤ Customers

Safe drinking water that meets or exceeds regulatory standards is delivered to our valuable customers in the Cities of Pompano Beach, Lighthouse Point, and Lauderdale-by-the-Sea.



At each step in the water treatment process, our certified laboratory staff collects water samples and conducts various testing to ensure that the water quality meets regulatory standards.



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 of our customers help us to 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 1:00 p.m. and 6:00 p.m., respectively. To receive meeting schedules and agendas, contact City Hall at 954-786-4600 or visit us on the web at <http://www.pompanobeachfl.gov>.

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, please visit us online at <http://pompanobeachfl.gov/pages/utilities/utilities> and the WaterSense website at <https://www.epa.gov/watersense>.