



**CITY OF FORT LAUDERDALE**

**2017**

**WATER QUALITY REPORT**

Este informe contiene información muy importante sobre su agua de beber. Para una copia en Español, por favor llamar al teléfono 954-828-8000.

Ti liv-sa-a gen ladann ransèyman enpòtan sou dlo nap bwè-a. Si nou vle yon kopi nan kreyòl ayisyen-an tanpri rele nimewo 954-828-8000.

# SPARKLING, CLEAN WATER

The City of Fort Lauderdale is pleased to provide you with the 2017 Water Quality Report to inform you about the water we deliver to you every day. This report contains information about the City's water source, water supply, the treatment process, and the contents of your drinking water. The City of Fort Lauderdale routinely monitors 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, 2017 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 laws, rules, and regulations.

## DRINKING WATER SOURCES AND CONTAMINANTS

The sources of drinking water (both tap 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:

**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.

**PESTICIDES AND HERBICIDES**, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.

**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.

**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 Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration 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 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 1-800-426-4791.

## HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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/Center for Disease Control 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.





# 2017 WATER QUALITY TABLE AND INFORMATION

The EPA requires the City of Fort Lauderdale to provide an annual report on laboratory tests taken on its drinking water. The 2017 Water Quality Table on the following page provides a summary of those test results.

## WATER QUALITY TABLE DEFINITIONS

**ACTION LEVEL (AL)** is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**MAXIMUM CONTAMINANT LEVEL (MCL)** is 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 (MCLG)** is 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 (MRDL)** is the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

**MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG)** is 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.

**NOT APPLICABLE (N/A)** is the common abbreviation for the phrase not applicable.

**NOT DETECTED (ND)** indicates that the substance was not found by laboratory analysis.

**PARTS PER BILLION (ppb)** is one part by weight of analyte to 1 billion parts by weight of the water sample.

**PARTS PER MILLION (ppm)** is one part by weight of analyte to 1 million parts by weight of the water sample.

**TREATMENT TECHNIQUE (TT)** is a required process intended to reduce the level of a contaminant in drinking water.

**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.

## 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 Fort Lauderdale 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 your potential for lead exposure by flushing your tap for 30 seconds to two 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 by calling the Safe Drinking Water Hotline at 1-800-426-4791 or visiting [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## SOURCE WATER ASSESSMENT

In 2017 the Florida Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are nine potential sources of contamination identified for this system with 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](http://www.dep.state.fl.us/swapp) or they can be obtained by calling the City of Fort Lauderdale Customer Service at 954-828-8000.



# FORT LAUDERDALE 2017

## MICROBIOLOGICAL CONTAMINANTS

CONTAMINANT AND UNIT OF MEASUREMENT	DATES OF SAMPLING (MO./YR.)	TT VIOLATION Y/N	RESULT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Total Coliform Bacteria	1/17-12/17	N	N/A	N/A	TT	Naturally present in the environment

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 water treatment or distribution. When this occurred we were required to conduct an assessment to identify problems and to correct any problems that were found during this assessment. During the past year we were required to conduct one Level 1 assessments. One Level 1 assessment was completed. No treatment violation was found within the City's area of purview, however a cross-connection issue was identified with an external entity that was seasonally irrigating Christmas trees without a backflow. The meter was shut off until the vendor installed proper backflow.

## 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)	6/17	N	1.70	1.40 - 1.70	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	6/17	N	0.0038	0.0014 - 0.0038	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	6/17	N	0.548	0.489 - 0.548	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)	6/17	N	0.0861	0.0631 - 0.0861	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	6/17	N	0.0525	0.00352 - 0.0525	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	6/17	N	33.8	26.6 - 33.8	N/A	160	Salt water intrusion, leaching from soil

## DISINFECTANTS AND DISINFECTION BY-PRODUCTS

DISINFECTANT OR CONTAMINANT AND UNIT OF MEASUREMENT	DATES OF SAMPLING (MO./YR.)	MCLOR MRDL VIOLATION Y/N	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR MRDLG	MCL OR MRDL	LIKELY SOURCE OF CONTAMINATION
Chloramines (ppm)	1/17 - 12/17	N	2.8	2.2 - 3.4	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	1/17, 5/17, 8/17, 10/17	N	38.4	9.0 - 45.1	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	1/17, 5/17, 6/17, 8/17, 10/17	N	70.6	17.2 - 96.3	N/A	MCL = 80	By-product of drinking water disinfection

One sample during 2017 (6001 NW 29th Avenue, June) had a TTHM result of 96.3 ppb, which exceeds the MCL of 80 ppb. However, the system did not incur an MCL violation, because all annual average results at all sites were at or below the MCL. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

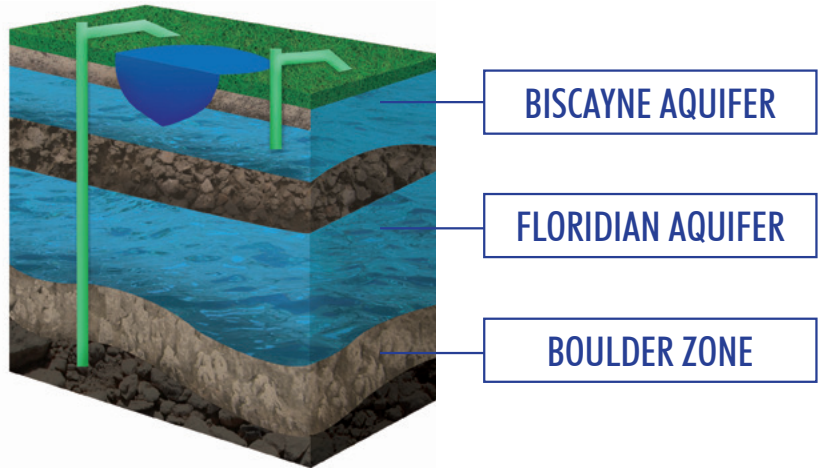
## LEAD AND COPPER (TAP WATER)

CONTAMINANT AND UNIT OF MEASUREMENT	DATES OF SAMPLING (MO./YR.)	AL EXCEEDED Y/N	90TH PERCENTILE RESULTS	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
Copper (tap water) (ppm)	6/17	N	0.1040	0 (0 out of 53)	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/17	N	5.60	3 (3 out of 53)	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Lead and Copper sampling is being conducted again in Summer 2020.

# FROM SOURCE TO TAP: WHERE YOUR DRINKING WATER COMES FROM

Where does Fort Lauderdale's water come from and how does it get from its source to the tap? The City of Fort Lauderdale pumps water from wells that draw it from the Biscayne Aquifer, which is an underground water supply and the sole source of the City's drinking water.



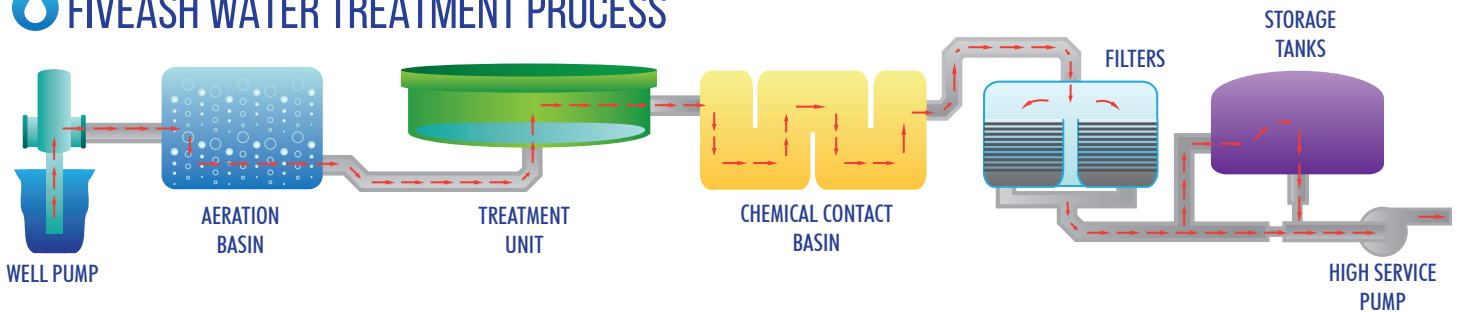
Before it reaches the faucet, the water travels from the Biscayne Aquifer to one of the City's two treatment plants – Fiveash, a lime softening plant, or Peele Dixie, a nanofiltration membrane plant.

At the treatment plants, the water is softened, fluoridated, filtered, aerated, and cleaned to remove naturally occurring minerals, particles, and dissolved gasses. The water is then disinfected with chloramines and fluoride is added to promote healthy teeth.

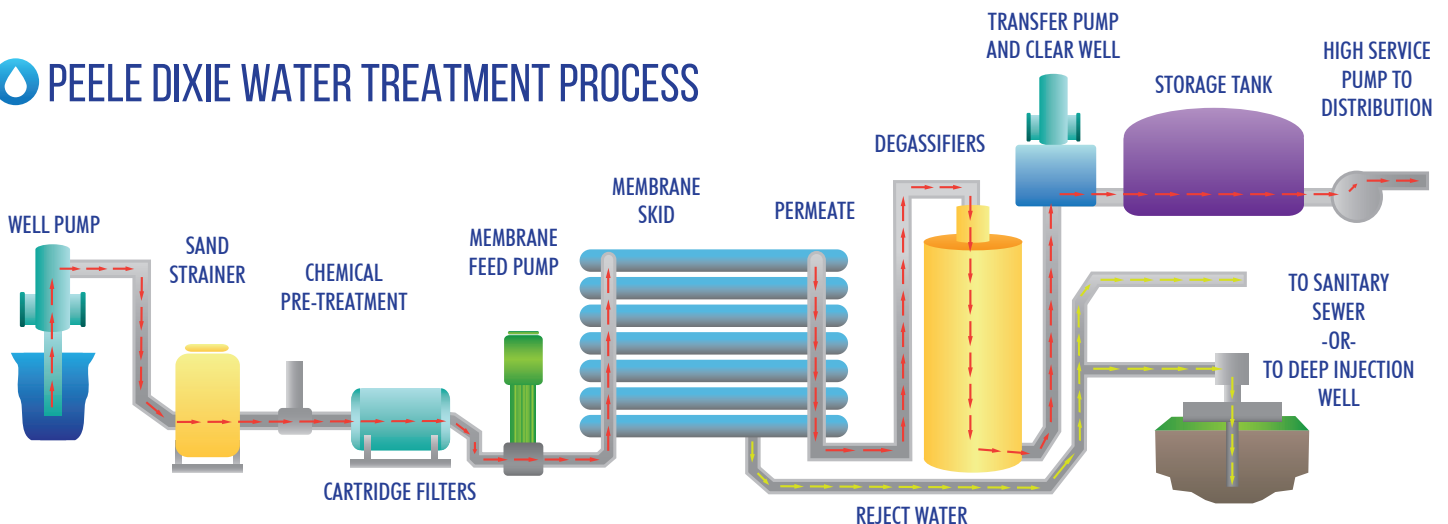
Once the treatment process is complete, the finished water is then pumped to storage tanks or to the distribution system for use.

Throughout the year, Fort Lauderdale's water is routinely monitored and tested to ensure customers receive high quality drinking water that meets all federal, state, and local regulations.

## FIVEASH WATER TREATMENT PROCESS



## PEELE DIXIE WATER TREATMENT PROCESS





## CITY OF FORT LAUDERDALE

**City Conference and Commission meetings are held on the first and third Tuesday of each month at 1:30 p.m. and 6 p.m. at City Hall, 100 North Andrews Avenue Fort Lauderdale, FL 33301.**

**For more information or questions about this report, please contact the City of Fort Lauderdale 24-hour Neighbor Call Center at 954-828-8000 or online at [www.fortlauderdale.gov/wqr](http://www.fortlauderdale.gov/wqr).**

If you would like this publication in an alternate format, please call (954) 828-4755 or email [strategiccommunications@fortlauderdale.gov](mailto:strategiccommunications@fortlauderdale.gov).