



Annual
WATER
QUALITY
REPORT
Reporting Year 2015

Presented By
City of Plantation



Is My Water Safe?

We are pleased to inform you that your drinking water *meets or exceeds* all federal, state and local standards and requirements. Enclosed is this year's presentation of the Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). The City of Plantation water system routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. This report is a snapshot of last year's water quality. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2015. Data obtained before January 1, 2015, such as lead and copper results presented in this report are the most recent testing in accordance with the laws, rules, and regulations.



Dear Valued Utility Customer

The Utilities Department provides you with this Consumer Confidence Report as a transparent record regarding the quality of our drinking water supply. This report is a compilation of information based on laboratory analyses performed daily, monthly, quarterly, and annually. Except where indicated otherwise, this report is a snapshot of last year's water quality based primarily on the results of our monitoring for the period of January 1 to December 31, 2015. Data obtained before January 1, 2015, such as lead and copper results presented in this report are the most recent testing in accordance with the laws, rules, and regulations.

The city remains in compliance with federal EPA guidelines by maintaining a safe and low level of lead within our water supply. I'm proud to say that your drinking water quality exceeds all federal (EPA), state (DEP), and local Florida Department of Health in Broward County (FDOH-BC) drinking water quality requirements for public drinking water systems. This is the result of the use of state-of-the-art membrane treatment technology, a consistent water main rehabilitation effort, and also because of dedicated employees who are responsible for water treatment, analysis, and distribution.

The Utilities Department is involved in many projects not only for new development but also in the rehabilitation of our aging infrastructure both at the plants and in the field. During 2016, a water main replacement project is underway in both the Plantation Historical area and Plantation Gardens. Please pardon the inconvenience caused by these projects, it's essential that water pipes throughout the city have structural integrity to maintain the high quality of water pumped from our treatment plants and that it is conveyed all the way to your tap.

Water conservation is and will continue to be a key issue as we comply with ground water withdrawal restrictions. We must continue the great job of conservation that Plantation is doing or face very expensive alternative water technologies. Please continue your conservation efforts and improve them where possible by fixing all leaks, installing water-efficient fixtures and toilets, and reduce outdoor uses by maintaining this culture of conservation. Please follow water conservation and source water tips provided in this year's report. Go to www.epa.gov/watersense.

Our Utilities Department staff is dedicated to providing a superior level of service to our customers. Please remember: If you have any billing questions or concerns, you may go online at Utilitybilling@plantation.org to review your account balance; or contact customer service/Finance Department at (954) 797-2290.

Sincerely,

Chuck Flynn
Director of Utilities

Where Does My Water Come From?

Plantation water comes from a network of 16 groundwater wells that reach 110 feet into the Biscayne Aquifer. The wells are located so that the land can still be used for parks. Two treatment plants, the East and Central Water Treatment Plants, treat ground water and discharge it into a common distribution system for use by customers.

The Plantation water you drink is regularly tested to ensure quality. Plantation continues to be a utility that can truthfully declare its water to be of the finest quality.

The water is pumped through specially designed composite membranes designed with pores smaller than particles of undesirable elements of the groundwater, thus eliminating impurities. This process replaces chemical softening. Membrane softening processes water to the extent that the water is of such high quality that many of the health and aesthetic concerns of chemical softening are eliminated. Our customers will be happy to know that Plantation water is also fluoridated and disinfected.

With our advanced treatment process, manned by an ultra dedicated cadre of professional staff, we pledge to continue providing drinking water of the highest quality to you at all times.

Source Water Assessment

The Department of Environmental Protection in 2014 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. The report indicated four potential sources of contamination identified for this system with low to moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program Web site at www.dep.state.fl.us/swapp or they can be obtained from the Plantation Utilities Department.



Substances That Could Be Present in Source Water

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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:

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, urban 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 U.S. 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.

Do I Need to Take Special Precautions?

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 microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Typical Source
Microbiological Contaminants							
Total Coliform (% positive samples/month)	1/15-12/15	N	0.02%	NA	0	<5%	Naturally present in the environment
Inorganic Contaminants							
Arsenic (ppb)	8/14	N	1.6	ND - 1.6	0	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	8/14	N	0.0013	0.00098 - 0.0013	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	8/14	N	0.77	0.57 - 0.77	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	7/15	N	0.064	0.033 - 0.064	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)	8/14	N	14.8	11.5 - 14	NA	160	Erosion of natural deposits; Leaching
Disinfectants and Disinfectant By-Products							
Chlorine and Chloramines (ppm)	1/15-12/15	N	2.32	1.31 - 3.32	4	4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	1/15-12/15	N	2.2 ¹	0.61 - 4.6	NA	60	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	1/15-12/15	N	4.5 ¹	0.25 - 8.7	NA	80	By-product of drinking water chlorination
Lead and Cooper (Tap water samples were collected from sites throughout the community)							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	AL Exceedance Y/N	90th Percentile Result Percentage/ Number	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Inorganic Contaminants							
Copper - (tap water) (ppm)	7/13	N	0.05	0	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - (tap water) (ppb)	7/13	N	1.2	1	0	15	Corrosion of household plumbing systems; Erosion of natural deposits

¹ The results reported are the highest LRAA for all monitoring locations.

Community Participation

You are invited to participate and voice your concerns about your drinking water. You may visit the Utilities Department at Plantation City Hall, 400 NW 73rd Avenue, or speak with any of the persons listed as contacts regarding this report or the quality of our water. You may also visit the City's Web site at www.plantation.org. If you want to learn more, please attend any of our regularly scheduled Council Meetings held every other Wednesday at 7:30 PM in City Hall Council Chambers located at 400 NW 73rd Avenue or contact the EPA at their Safe Drinking Water Hotline (800-426-4791) for additional information.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait 1/2 an hour. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Lead In Home Plumbing

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. City of Plantation 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>.

Important Drinking Water Definitions

Term	Definition
MCLG	Maximum Contaminant Level Goal: 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
MCL	Maximum Contaminant Level: 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
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
LRAA	Locational Running Annual Average: The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
MRDLG	Maximum Residual Disinfection Level Goal. 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
MRDL	Maximum Residual Disinfectant Level. 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

Unit Descriptions

Term	Definition
ppm	Parts per million or milligrams per liter (mg/l): 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): One part by weight of analyte to one billion parts by weight of the water sample
NA	Not applicable
ND	Not detected: Indicates that the substance was not found by laboratory analysis

For more information please contact:

Contact Name:

Chuck Flynn, Director of Utilities
 400 NW 73rd Avenue
 Plantation, FL 33317
 Phone: (954) 797 2293

Rupert McCormack, Regulatory Compliance Coordinator
 400 NW 73rd Avenue
 Plantation, FL 33317
 Phone: (954) 414 7355