The City of Riviera Beach Utility Special District Presents It's

2018 Annual

WATER QUALITY REPORT

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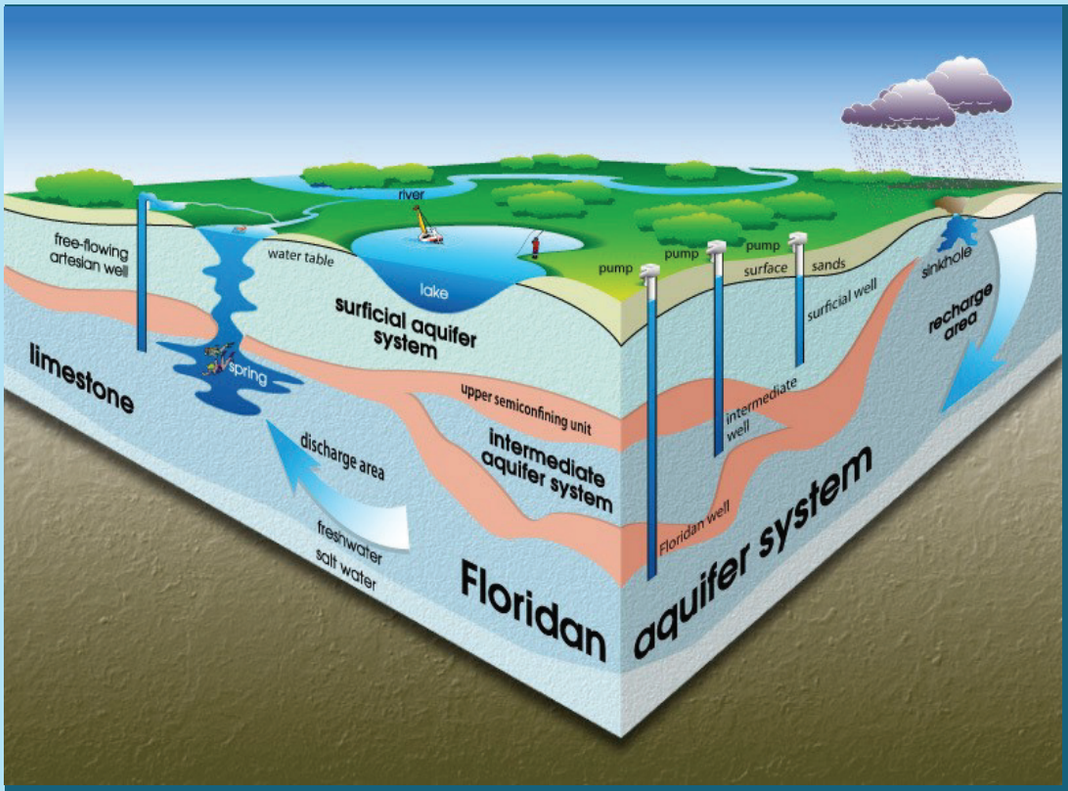
Is my water safe?

The City of Riviera Beach Utility Special District is pleased to present this year's Annual Water Quality Report (Consumer Confidence Report—CCR) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's (2018) water quality. We are committed to providing you with information because informed customers are our best allies. Last year, we conducted tests for over 80 contaminants. We found only 3 at a level higher than the EPA allows, the MCL. As we informed you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations toward the end of this report.)

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/Centers for Disease Control (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).



Where does my water come from?

The City of Riviera Beach Utility Special District's Water Treatment Plant obtains raw water from the East Coast Surficial aquifers and pumps this water out of the ground through 27 wells located throughout the City of Riviera Beach .

Description of Water Treatment Process

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

Source Water Assessment

The Florida Department of Environmental Protection (FDEP) has performed a Source Water Assessment on our system. The assessment was performed in 2018, and there were 18 potential sources with low to moderate levels of susceptibility and one with high impact potential. This inventory only identifies potential sources of contamination. It does not mean that these sites are actively causing contamination of the drinking water source. The assessment results are available on the FDEP Source Water Assessment and Protection Program website

Why are there contaminants in my drinking 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:

Microbial contaminants, such as viruses and bacteria, that 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

We invite you to participate in our public forum and voice your concerns about your drinking water. Our meetings are held on the third Monday of each month, beginning at 6:00 p.m. at City Hall Council Chambers, 600 West Blue Heron Blvd., Riviera Beach, FL.

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? Lucki-ly, 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. 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 that 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 Ocean" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water bodies.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

Boiler/ Radiant heaters (water heaters not included)

Underground lawn sprinkler systems

Pool or hot tub (whirlpool tubs not included)

Additional source(s) of water on the property

Decorative ponds

WATER QUALITY DATA TABLES

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 at levels above the EPA and Palm Beach County Department of Health Drinking Water limits. 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. 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.

Contaminant and Unit of Measurement	Dates of sampling	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Total Trihalomethanes (TTHM) System (ppb)	1/18 – 12/18	Yes	158.3 (highest LRAA)	53.3 – 158 LRAA	N/A	80	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) Site SM-2 (ppb)	1/18 – 12/18	Yes	97.6	29.3 – 97.6	N/A	80	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) Site SM-3 (ppb)	1/18 – 12/18	Yes	90.8	30.1 - 90.8	N/A	80	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) Site SM-4 (ppb)	1/18 – 12/18	Yes	99.2	32.3 – 99.2	N/A	80	By-product of drinking water disinfection
Total Haloacetic Acids 5 (HAA5) System (ppb)	1/18 – 12/18	No	42.6 (highest LRAA)	33.2 – 42.6 LRAA	N/A	60	By-product of drinking water disinfection
Total Haloacetic Acids 5 (HAA5) System (ppb)	1/18 – 12/18	No	N/A	21.9 – 56.8	N/A	60	By-product of drinking water disinfection

Contaminant	Dates of sampling (mo/yr)	MCL Violation	Total Number of Positive **WELL** Samples for the Year	MCLG	MCL	Likely source of contamination
E. coli **	9/26/2018	Yes	3	0	0 E. coli positive samples	See Note Below

Contaminant and Unit of Measure-	Dates of sampling (mo/yr)	TT Violation	Result	MCLG	TT	Likely Source of Contamination
Total Coliform Bacteria*	**Apr., Jun., Aug., Nov. 2018**	**Y**	**17 Positive Samples**	**N/A**	**TT**	Naturally present in the environment

In August 2018 we failed to collect the correct repeat Total Coliform sample so we were therefore late in collecting the correct sample and this led to a TT violation. In other months we had > 5% positive Total Coliform samples.

TABLE FOOTNOTES

Total Coliform Bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens 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 occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

E. coli are bacteria whose presence indicates that water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.

Violations and Exceedances

Level 1 Assessment and Sanitary Defects
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliform indicating the need to look for potential problems in 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.

During the past year we were required to conduct one Level 1 Assessment. One Level 1 Assessment was completed in June 2018. In addition, we were required to take ten corrective action(s) and we completed nine of those actions.

During the past year we failed to correct all identified defects that were found during the assessment. This is a treatment technique violation. Corrective actions require outside contractors and consultants and must go through the bidding process. The Department of Health has approved our Corrective Actions Timeline. Completion of all Corrective Actions will continue through the end of 2020. A system wide chlorine burn was performed on the entire distribution system and fire hydrants in the southwest distribution area are being flushed frequently in order to keep water flowing in that area to increase residual chlorine levels and ensure safe drinking water.

Level 2 Assessments and Sanitary Defects
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found total coliform indicating the need to look for potential problems in 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.

During the past year we were required to conduct four Level 2 Assessments. Four Level 2 Assessments were completed. In addition, we were required to take six corrective actions and we completed four of these corrective actions to date

During the past year we failed to correct all identified defects that were found during the assessment. This is a treatment technique violation. Two of the Corrective Actions require outside contractors and consultants which must go through a bidding process. The Utility District is in the process of receiving these bids for evaluation. The FL Dept. of Health has approved the corrective action timeline which will take through the end of 2020 to complete. Level A Treatment Plant Operators and Outside Consultants performed thorough investigations of all components of the water treatment, storage and distribution systems. Numerous Groundwater Wells were repaired and/or rehabilitated, corrective action bid packages were prepared, and increased system flushing is being performed in the South-West service area where the problems exist.

Contaminants	State MCL	Your Drinking Water	Violation	Explanation and Com-
Additional Testing				
Volatile Organic Compounds (VOC)	Various ppb	< MCL ppb	No	VOCs include 28 chemicals including; Benzene, Chloroform, Toluene, Perchloroethylene, Acetone, etc.
Dalapon (Herbicide)	200 ppb	2.4 ppb	No	

Unit Descriptions	
Term	**Definition**
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
positive samples	positive samples/yr: The number of positive samples taken that year

Important Drinking Water Definitions	
Term	**Definition**
MCLG	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	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Contact Us

Please give us a call or send us an email for more information about our services and this report.

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Visit us on the web at:

http://www.rivierabch.com/UD

UTILITY PROGRAMS available to our Customers:

- Utility Assistance Program
- PAY Online
- Emergency Service (561) 847-4187