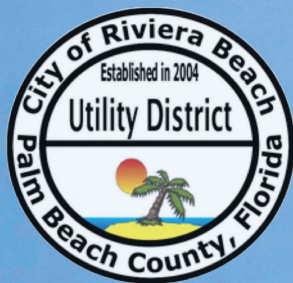


# Annual WATER QUALITY REPORT

Reporting Year 2023



*Presented By*  
City of Riviera Beach

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Ronnie L. Felder

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## Is My Water Safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) 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 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 only detected 13 of those contaminants, and found only 1 at a level higher than the EPA allows. As we informed you previously, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations and Exceedances at the end of the report.)

## Where Does My Water Come From?

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

## Questions?

For more information about this report, or for any questions relating to your drinking water, please call the City of Riviera Beach Utility Special District at (561) 845-4185.

## Source Water Assessment and its Availability

The Florida Department of Environmental Protection (FDEP) has performed a Source Water Assessment on our system. These assessments were conducted to provide information about any potential sources of contamination in the vicinity of our wells. Potential sources of contamination identified include petroleum storage tanks, small quantity generators and large quantity generators. The assessment was done in 2023, and there were 25 unique potential contaminant sources with low to moderate levels of susceptibility. 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 at <https://prodapps.dep.state.fl.us/swapp/>.



# 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.

## FOG (Fats, Oils, and Grease)



You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, report pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

### NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a wastebasket.

### ALWAYS:

- Scrape and collect fat, oil, or grease into a waste container, such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, cream and lotions, and personal hygiene products, including non-biodegradable wipes.



## Community Participation

We invite you to participate in our public forum and voice your concerns about your drinking water. Utility Special District Board meetings are held on the third Wednesday of each month, if needed, beginning at 5:30 p.m., at the Riviera Beach Marina Event Center, 190 East 13th Street, Riviera Beach, FL.



## Why Are There Contaminants In My Drinking Water?

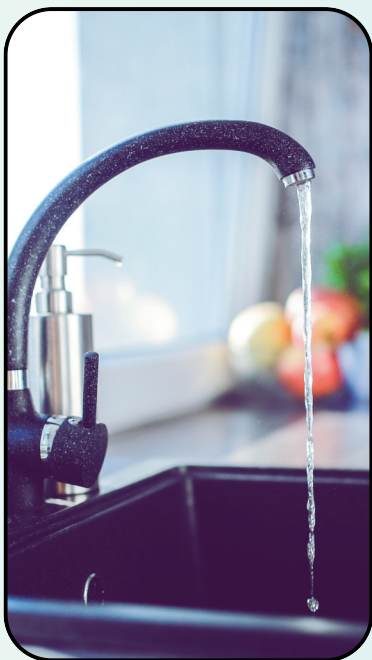
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick 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, animal waste, 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.

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 U.S. 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.



## How Do We Treat Our Water?

Currently, the Riviera Beach Utility Special District operates a lime-softening treatment plant. Raw water from the well field is first air-stripped to eliminate volatile organic compounds. The water is then treated with chemicals (lime and polymer), then disinfected with a combination of liquid chlorine and ammonia (chloramines). This treatment occurs in a treatment unit that both softens and clarifies the water. The water is then filtered to remove turbidity, and pumped to our consumers throughout the water distribution system. Ensuring that a disinfection residual remains in our water pipes throughout the distribution system is an important outcome of treatment.



## THIS REPORT SHOWS OUR WATER QUALITY RESULTS AND WHAT THEY MEAN

THE RIVIERA BEACH UTILITY SPECIAL DISTRICT 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 JAN. 1, 2023 TO DEC. 31, 2023. DATA OBTAINED BEFORE JAN. 1, 2023, AND PRESENTED IN THIS REPORT IS FROM THE MOST RECENT TESTING DONE IN ACCORDANCE WITH THE LAWS, RULES, AND REGULATIONS.

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 tables below list 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 drinking water.

### PRIMARY REGULATED CONTAMINANTS

#### Microbiological Contaminants

| Contaminant             | Dates of sampling (mo/yr) | TT Violation | Result   | MCLG | TT  | Likely Source of Contamination       |
|-------------------------|---------------------------|--------------|----------|------|-----|--------------------------------------|
| Total Coliform Bacteria | 1/2023, 4/2023, 5/2023    | Y            | Positive | N/A  | *TT | Naturally present in the environment |

\*More than 5% of samples collected during the month were Total Coliform (TC)-positive and we failed to take the required repeat samples after every TC+ sample.

#### Microbiological Contaminants

| Contaminant  | Dates of sampling (mo/yr) | MCL Violation Y/N | Total Number of Positive Samples for the Year | MCLG | MCL  | Likely source of contamination |
|--|---------------------------|-------------------|---|------|--|--------------------------------|
| <i>E. coli</i> (RTCR – in the distribution system) | 6/2023                    | Y                 | 1   | 0    | **Routine and repeat samples are total coliform positive and either is <i>E. coli</i> positive or system fails to take repeat samples following <i>E. coli</i> positive routine sample or system fails to analyze total coliform positive repeat sample for <i>E. coli</i> | Human and animal fecal waste   |

\*\*We failed to take all required repeat samples following an *E. coli*-positive routine sample.

#### Microbiological Contaminants

| Contaminant                                    | Dates of sampling (mo/yr) | Violation Y/N | Total Number of Positive Samples for the Year | MCLG | MCL | Likely source of contamination |
|--|---------------------------|---------------|---|------|-----|--------------------------------|
| <i>E. coli</i> (at the ground water source)*** | 6/2023, 8/2023            | Y             | 2   | 0    | 0   | Human and animal fecal waste   |

\*\*\*We sampled Well #14 on June 27, 2023 and Well #801 on August 10, 2023, for total coliform and *E. coli*. We were notified on June 28, 2023 and August 11, 2023, respectively, that the samples were positive for *E. coli*. Repeat samples were collected on August 8-11, 2023 (Well #14) and August 14, 2023 (Well #801) and all samples were satisfactory. Well #14 has since been repaired and disinfected, and there have been not been any other positive samples from Well #801 to date. USD is working with contractors to identify and correct any deficiencies at all of our wells.

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

**PRIMARY REGULATED CONTAMINANTS**

| <b>Inorganic Contaminants</b>              |                                  |                          |                       |                         |             |            |  |
|--|----------------------------------|--------------------------|-----------------------|-------------------------|-------------|------------|--|
| <b>Contaminant and Unit of Measurement</b> | <b>Dates of sampling (mo/yr)</b> | <b>MCL Violation Y/N</b> | <b>Level Detected</b> | <b>Range of Results</b> | <b>MCLG</b> | <b>MCL</b> | <b>Likely Source of Contamination</b>  |
| Barium (ppm)                               | 5/2023                           | N                        | 0.0051                | N/A                     | 2           | 2          | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits   |
| Fluoride (ppm)                             | 5/2023                           | N                        | 0.15                  | N/A                     | 4           | 4          | 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)                | 5/2023                           | N                        | 0.55                  | 0.51 – 0.55             | 10          | 10         | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits  |
| Nitrite (as Nitrogen) (ppm)                | 5/2023                           | N                        | 0.028                 | ND – 0.028              | 1           | 1          | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits  |
| Sodium (ppm)                               | 5/2023                           | N                        | 25.6                  | N/A                     | N/A         | 160        | Saltwater intrusion, leaching from soil  |

| <b>Stage 1 Disinfectants and Disinfection By-products</b>  |                                  |                                  |                       |                         |                      |                    |   |
|--|----------------------------------|----------------------------------|-----------------------|-------------------------|----------------------|--------------------|---|
| <b>Disinfectant or Contaminant and Unit of Measurement</b> | <b>Dates of sampling (mo/yr)</b> | <b>MCL or MRDL Violation Y/N</b> | <b>Level Detected</b> | <b>Range of Results</b> | <b>MCLG or MRDLG</b> | <b>MCL or MRDL</b> | <b>Likely Source of Contamination</b>   |
| Chloramines (ppm)  | 1/2023 – 12/2023                 | N                                | 3.25                  | 0.21 – 4.30             | MRDLG = 4            | MRDL = 4.0         | Water additive used to control microbes |

| <b>Stage 2 Disinfectants and Disinfection By-Products</b> |                                       |                            |                       |                         |             |            |   |
|---|---------------------------------------|----------------------------|-----------------------|-------------------------|-------------|------------|---|
| <b>Contaminant and Unit of Measurement</b>                | <b>Dates of sampling (mo/yr)</b>      | <b>MCL Violation (Y/N)</b> | <b>Level Detected</b> | <b>Range of Results</b> | <b>MCLG</b> | <b>MCL</b> | <b>Likely Source of Contamination</b>     |
| Haloacetic Acids (HAA5) (ppb)                             | 3/2023<br>6/2023<br>9/2023<br>12/2023 | N                          | 22.6                  | 12.1 – 22.6             | N/A         | 60         | By-product of drinking water disinfection |
| Total Trihalomethanes (TTHM) (ppb)                        | 3/2023<br>6/2023<br>9/2023<br>12/2023 | N                          | 22.8                  | 9.1 – 22.8              | N/A         | 80         | By-product of drinking water disinfection |

| <b>Lead and Copper (Tap Water)</b>         |                                  |                          |  |   |             |                          |  |
|--|----------------------------------|--------------------------|--|---|-------------|--------------------------|--|
| <b>Contaminant and Unit of Measurement</b> | <b>Dates of sampling (mo/yr)</b> | <b>AL Exceeded (Y/N)</b> | <b>90<sup>th</sup> Percentile Result</b> | <b>No. of sampling sites exceeding the AL</b> | <b>MCLG</b> | <b>AL (Action Level)</b> | <b>Likely Source of Contamination</b>  |
| Copper (tap water) (ppm)                   | 9/2023<br>10/2023                | N                        | 0.101                                    | 0   | 1.3         | 1.3                      | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (tap water) (ppb)                     | 9/2023<br>10/2023                | N                        | 2.4                                      | 1   | 0           | 15                       | Corrosion of household plumbing systems; erosion of natural deposits                                   |

**Additional Information for 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. (insert name of utility) 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 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 from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.



## 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. U.S. Environmental Protection Agency/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 (800-426-4791).

### SECONDARY CONTAMINANTS

| Contaminant and Unit of Measurement | Dates of sampling (mo/yr) | MCL Violation Y/N | Highest Result | Range of Results | MCLG | MCL | Likely Source of Contamination |
|-------------------------------------|---------------------------|-------------------|----------------|------------------|------|-----|--------------------------------|
| Color (color units)                 | 5/2023                    | Y                 | 20             | N/A              | 15   | 15  | Naturally occurring organics   |

The following contaminants were monitored for in 2023 because it had been detected in the past, however, it was not detected in your water.

### UNDETECTED CONTAMINANTS

#### Synthetic Organic Contaminants including Pesticides and Herbicides

| 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              |
|-------------------------------------|---------------------------|-------------------|----------------|------------------|------|-----|---|
| Dalapon (ppb)                       | 5/2023                    | N                 | ND             | N/A              | 200  | 200 | Runoff from herbicide used on rights of way |

## IMPORTANT DRINKING WATER 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.
- **ND** means not detected and indicates that the substance was not found by laboratory analysis.
- **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.
- **Treatment Technique (TT):** 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.
- **Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

## 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. 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](http://www.epa.gov/watersense) for more information.

## A Reminder of Watering Days and Times

If your home address ends in an odd number (1, 3, 5, 7, 9), you may water on the following days and times:

- Monday, Wednesday, and Saturday, before 10 am and after 4 pm

If your home address ends in an even number (0, 2, 4, 6, 8), you may water on the following days and times:

- Tuesday, Thursday, and Sunday, before 10 am and after 4 pm

## Cross Connection Control Self-Monitoring 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. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of connection-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

We are responsible for enforcing cross-connection control regulations and ensuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us at [Utilities@rivierabeach.org](mailto:Utilities@rivierabeach.org) 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 heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough



## What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time. The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Recently, in April 2024, EPA issued the first-ever national, legally enforceable drinking water standard to protect communities from exposure to harmful PFAS. The new rule requires water systems to take action if the level of PFAS in the drinking water exceeds regulatory standards. Regulated public water systems have three years to complete their initial monitoring for these chemicals at all entry points to the distribution system. We will begin initial monitoring for PFAS in 2024 as part of the Unregulated Contaminants Monitoring Rule 5 (UCMR5). For a more detailed discussion on PFAS, please visit <https://www.epa.gov/pfas>.

The City of Riviera Beach Utility Special District is a class member in the PFAS Water Provider Settlement, which is a class action settlement to resolve claims for PFAS contamination in Public Water Systems' Drinking Water, against PFAS manufacturers including 3M, DuPont, Chemours, and Corteva. As part of the settlement, we were required to complete baseline testing at every ground water well. We completed the baseline testing at all 27 ground water wells in December 2023. A summary of the results at the wells is provided in the table below.

### SOME PRODUCTS THAT MAY CONTAIN PFAS INCLUDE:

- SOME GREASE-RESISTANT PAPER, FAST FOOD CONTAINERS/WRAPPERS, MICROWAVE POPCORN BAGS, PIZZA BOXES
- NONSTICK COOKWARE
- STAIN-RESISTANT COATINGS USED ON CARPETS, UPHOLSTERY, AND OTHER FABRICS
- WATER-RESISTANT CLOTHING
- PERSONAL CARE PRODUCTS (SHAMPOO, DENTAL FLOSS) AND COSMETICS (NAIL POLISH, EYE MAKEUP)
- CLEANING PRODUCTS
- PAINTS, VARNISHES, AND SEALANTS

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772.

**The City of Riviera Beach Utility Special District is designing a new water treatment facility that will address these newly regulated contaminants.**

### PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

#### SUMMARY OF PFAS RESULTS AT THE GROUND WATER SOURCES (WELLS)

| Contaminant <sup>1</sup>       | Dates of sampling (mo/yr) | Level Detected (Avg) | Range of Results | MCLG | MCL | Likely Source of Contamination  |
|--------------------------------|---------------------------|----------------------|------------------|------|-----|---|
| PFOA (ppt)                     | 12/2023                   | 13.3                 | ND – 41          | 0    | 4   | Waste sites, fire extinguishing foam, manufacturing facilities, consumer products, food packaging, wastewater biosolids |
| PFOS (ppt)                     | 12/2023                   | 36.9                 | ND – 120         | 0    | 4   | Waste sites, fire extinguishing foam, manufacturing facilities, consumer products, food packaging, wastewater biosolids |
| PFNA (ppt)                     | 12/2023                   | 3.2                  | ND – 16          | 10   | 10  | Waste sites, fire extinguishing foam, manufacturing facilities, consumer products, food packaging, wastewater biosolids |
| PFHxS (ppt)                    | 12/2023                   | 8.3                  | ND – 17          | 10   | 10  | Waste sites, fire extinguishing foam, manufacturing facilities, consumer products, food packaging, wastewater biosolids |
| HFPO-DA (GenX Chemicals) (ppt) | 12/2023                   | ND                   | ND               | 10   | 10  | Waste sites, fire extinguishing foam, manufacturing facilities, consumer products, food packaging, wastewater biosolids |

<sup>1</sup> PFOA: Perfluorooctanoic Acid

PFOS: Perfluorooctane Sulfonic Acid

PFNA: Perfluorononanoic Acid

PFHxS: Perfluorohexane Sulfonic Acid

HFPO-DA (GenX Chemicals): Hexafluoropropylene Oxide Dimer Acid

Parts per trillion (ppt) or nanograms per liter (ng/l): one part by weight of analyte to 1 trillion parts by weight of the water sample

## VIOLATIONS AND EXCEEDANCES

| Violation Type  | Explanation   | Timeframe / Length                     | Health Effects   | Explanation and Comment  |
|---|---|--|--|--|
| <b>Total Coliform Bacteria (TT)</b>                             | More than 5% of samples collected during the month were total coliform-positive. Failure to take every required repeat sample after any single total coliform-positive sample.  | January 2023<br>April 2023<br>May 2023 | 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. | We found total coliform bacteria in 2 or more routine distribution samples during January 2023, April 2023, and May 2023. More details about these samples are included below. When a routine sample is positive for total coliform, we are required to collect repeat samples. Also, if 2 or more samples are positive we are required to conduct a Level 1 Assessment. We failed to collect all of the required repeat samples for each total coliform-positive sample and we did not complete the required Level 1 Assessments.   |
| <b><i>E. coli</i> (RTCR) - in the distribution system (MCL)</b> | Failure to take all of the required repeat samples following an <i>E. coli</i> -positive routine sample. Failure to notify the Florida Department of Health within 24 hours of being notified of an <i>E. coli</i> -positive sample result.   | June 6, 2023 – June 30, 2023           | <i>E. coli</i> are bacteria whose presence indicates that the 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.  | <i>E. coli</i> bacteria was indicated in a routine sample, indicating the need to look for potential problems in water treatment or distribution system. When this occurs, we are required to take required repeat samples and notify the Florida Department of Health (FDOH). We failure to collect all of the required repeat samples and provide notification to FDOH. In order to ensure this type of violation is avoided in the future, a revised bacteriological sampling plan has been submitted for review to FDOH. The revised plan includes updated procedures that instruct USD staff on how to correctly respond to total coliform- and <i>E. coli</i> -positive samples.   |
| <b>Ground Water Rule violations (TT)</b>                        | Failure to collect five repeat water samples within 24 hours of being notified of an <i>E. coli</i> -positive sample result for a ground water source sample. Failure to notify the Florida Department of Health within 24 hours of being notified of an <i>E. coli</i> -positive sample result. Failure to issue a Tier 1 Public Notice following notification of an <i>E. coli</i> -positive source water sample. | June 2023 - August 2023                | <i>E. coli</i> are bacteria whose presence indicates that the 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.  | <i>E. coli</i> bacteria was indicated in source water samples on June 27, 2023 (Well #14) and August 10, 2023 (Well #801). We failed to notify the FDOH and collect five repeat water samples within 24 hours to confirm the <i>E. coli</i> -positive sample. We also failed to issue a Tier 1 Public Notice within 24 hours of learning about the positive samples. In order to ensure this type of violation is avoided in the future, we've revised our bacteriological sampling plan to include specific procedures on how to respond after receiving notification of <i>E. coli</i> -positive source water samples. USD has worked with contractors to identify and correct any deficiencies that may have contributed to total coliform- and <i>E. coli</i> -positive samples at Well #14. |
| <b>Lead and Copper Rule violations (TT)</b>                     | Failure to provide a consumer notice for an individual sample that exceeded the 15 ppm lead action level within 3 calendar days after learning of the tap sample results.   | October 9, 2023 – November 3, 2023     | Lead. Infants and children who drink water containing lead in excess of the MCL could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.   | We received lead and copper tap sample results on October 9, 2023, which included one tap sample that exceeded the 15 ppm lead action level. We did not provide a consumer notice for this sample within 3 calendar days as required. We provided the consumer notice to the customer by November 3, 2023. A standard operating procedure for lead and copper monitoring has been developed to include specific instructions on follow-up procedures after receiving lead and copper tap sample results.   |

## RECORDKEEPING VIOLATIONS

USD did not retain the customer collection forms for the 2023 Lead and Copper monitoring period, that document sample collection instructions and procedures. A standard operating procedure for lead and copper monitoring has been developed to include specific instructions on sample handling and chain-of-custody requirements, and follow-up procedures after receiving lead and copper tap sample results.



## LEVEL 1 AND LEVEL 2 ASSESSMENTS REQUIRED BY THE REVISED TOTAL COLIFORM RULE

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 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 Level 1 Assessments. The assessments were required because more than 5% of samples collected during the month were total-coliform positive, and we failed to take every required repeat sample after some of the total-coliform positive samples. We failed to conduct the required assessments which resulted in a treatment technique violation.

*E. coli* are bacteria whose presence indicates that the 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. We found *E. coli* bacteria, 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 Level 2 Assessments. The assessments were required because we had two Level 1 triggers in a 12-month period, and we also had an *E. coli* MCL violation. Level 2 Assessments were not completed in 2023. Because we failed to conduct the required assessments, this is a treatment technique violation.

Although we failed to complete the required assessments in 2023, a Level 2 Assessment was completed on March 8, 2024. The assessment did not identify a direct or indirect cause of the *E. coli*-positive sample from June 6, 2023. However, based on the collective findings of all data reviewed, it was deduced that contamination during the sampling at sample station #38 is the most likely cause. While a direct or indirect contributing cause was not identified, several conditions were observed that require corrective measures, including the revision of the bacteriological sampling plan which has already been completed.

## MONITORING AND REPORTING OF COMPLIANCE DATA VIOLATIONS

USD failed to conduct distribution repeat sampling and triggered source water sampling after being notified of total coliform-positive (TC+) and *E. coli*-positive (EC+) routine distribution and well samples.

- USD failed to take all required repeat samples following total coliform-positive or *E. coli*-positive routine samples, during the following monitoring periods:
  - January 2023 (TC+ at 225 E. 28<sup>th</sup> St. and 3300 Lake Shore Dr.)
  - April 2023 (TC+ at 7305 N. Military Trl., VA Fisher House and 4822 Caribbean Blvd.)
  - May 2023 (TC+ at 200 W. 10<sup>th</sup> St.)
  - June 2023 (TC+ and EC+ at 4822 Caribbean Blvd.)
- USD also failed to conduct the required triggered source water monitoring during the following monitoring periods, due to positive distribution system samples: January 2023, April 2023, May 2023, June 2023, October 2023, and December 2023.
- USD failed to notify FDOH within 24 hours and conduct the required Ground Water Rule monitoring for EC+ samples collected at Well #14 on June 27, 2023 and Well #801 on August 10, 2023. The five additional well samples required to be collected within 24 hours of receiving notice of an *E. coli*-positive sample, were not collected for either incident.

## REPORTING VIOLATIONS

USD failed to issue the appropriate notification to the public and/or to the Florida Department of Health, for situations or violations that occurred in 2023. These are reporting violations that occurred in 2023:

- Failure to issue Public Notice for a violation of the MCL for *E. coli* because USD failed to take all of the required repeat samples following an *E. coli*-positive routine distribution sample on June 6, 2023.
- Failure to notify the Florida Department of Health within 24 hours for an *E. coli*-positive sample collected on June 6, 2023.
- Failure to issue Public Notice for the detection of *E. coli* in a ground water source sample (Well #14) collected on June 27, 2023.
- Failure to notify the Florida Department of Health within 24 hours for an *E. coli*-positive ground water source sample collected on June 27, 2023.
- Failure to submit the June 2023 bacteriological sampling reports by July 10, 2023.
- Failure to issue Public Notice for the detection of *E. coli* in a ground water source sample (Well #801) collected on August 10, 2023.
- Failure to notify the Florida Department of Health within 24 hours for an *E. coli*-positive ground water source sample collected on August 10, 2023.
- Failure to provide a consumer notice for an individual lead and copper tap sample that exceeded the 15 ppm lead action level within 3 calendar days after learning of the tap sample results on October 9, 2023. The required consumer notice was provided to the customer by November 3, 2023.
- Failure to issue Public Notice for a violation of a monitoring requirement for triggered source water monitoring. A total coliform-positive sample collected on December 22, 2023 required triggered source water monitoring within 24 hours, of all of the active sources (wells) running at the time of the positive sample. This monitoring was not completed and a Tier 2 Public Notice was not issued within 30 days.

