



# 2015 Annual Drinking Water Quality Report for Reedy Creek Improvement District

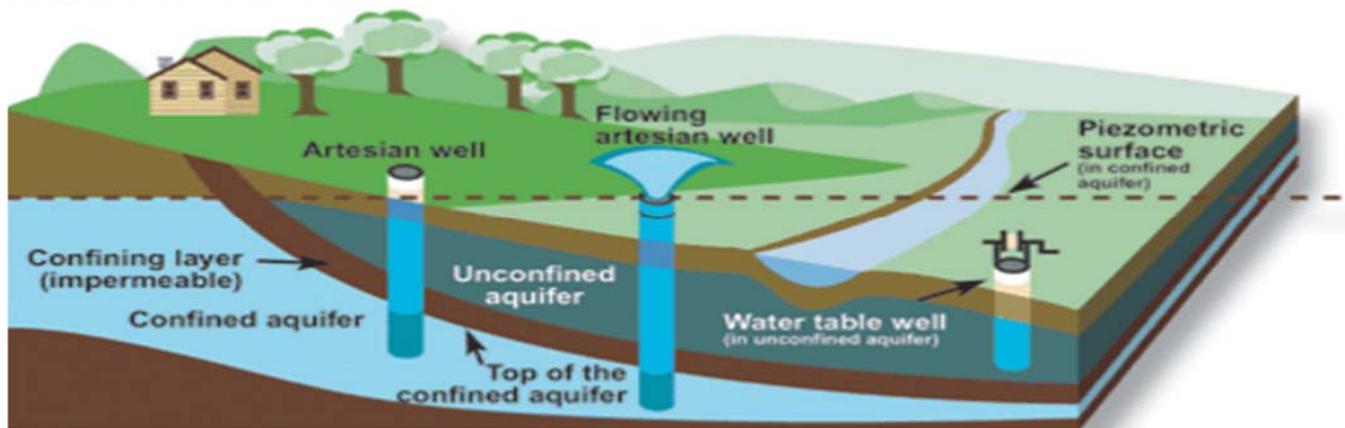
Reedy Creek Improvement District (RCID) is pleased to present the 2015 Annual Water Quality Report. This report is designed to inform you about the quality of water provided during the year 2015. Included are details about the source of your water, what it contains, and how it compares to standards set by regulatory agencies. RCID is committed to providing you with a safe, reliable source of drinking water and useful information about your water supply. We believe that customers who are well informed are our best allies in protecting our water supply.

The Water Quality Data Tables presented in this report show that the Reedy Creek Improvement District potable water system had no violations. As authorized and approved by EPA, the State of Florida has reduced monitoring requirements for certain contaminants to less often than once per year because the concentration of these contaminants are not expected to vary significantly from year to year.

## Our Water Source

Drinking water for RCID is supplied from 9 wells that are strategically located throughout the property. These wells range from 340 to 900 feet deep into the Upper Floridan Aquifer which provides a high quality, reliable, and protected underground source. The Upper Floridan Aquifer is one of the largest underground reservoirs of freshwater in the country. The aquifer is primarily fed by rainwater that is filtered through hundreds of feet of sand, clay and rock, undergoing a natural cleansing process. The water is of consistently high quality; therefore, no treatment other than chlorination is required. In 2015, RCID's water system processed an average of 17.28 million gallons of water per day (MGD) for public use and an average of 5.01 MGD of reclaimed water for irrigation and other non-potable uses.

### Aquifers and wells



## Source Water Assessment and Protection Program

The Department of Environmental Protection has performed a Source Water Assessment on our system. This assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. In 2015, there was one potential source of contamination identified for this system with a low susceptibility level (2.22). The “Susceptibility Score” and “Concern Level” are considered low and therefore it is not considered a threat to the drinking water source and does not necessitate further action. 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)

## Contact Information

This report contains important information about the quality of water in your community. A written copy of the report will be mailed to customers only upon request. If you have any questions about this report or concerning your water utility, please contact Jerry Hubbard at 407-824-4841. Office hours are Monday-Friday, 8am-5pm.

Este informe contiene información importante sobre la calidad del agua en su comunidad. Una copia escrita del este reporte sera enviada por correo unicamente a quien asi lo solicite . Si usted tiene alguna pregunta sobre este reporte o su servicio de agua, favor the comunicarse con Jose Garcia al 407-824-1248

## Reporting Period

RCID 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 to December 31, 2015. Data obtained before January 1, 2015, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

## Meter and Backflow Assembly



## Statement About Source Water Contaminants

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. RCID 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>.

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:

**Microbiological 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 EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from EPA's Safe Drinking Water Hotline 800-426-4791.

## Reedy Creek Improvement District 2015 Water Quality Test Results

| Micro biological Contaminant       | Date of Sampling | MCL/AL Violation? Y/N | Highest Monthly Percentage of Positive Samples | Number of positive samples for year | MCLG | MCL  | Possible Sources                      |
|------------------------------------|------------------|-----------------------|--|-------------------------------------|------|------|---------------------------------------|
| Total Coliform Bacteria            | 6/15             | N                     | 2.13%*   | N/A                                 | 0    | 5%** | Naturally present in the environment. |
| Fecal coliform or E. Coli bacteria | 12/16/15         | N                     | N/A  | 1***                                | 0    | 0    | Human or animal fecal waste           |

\*Highest monthly percentage of total Coliform positive samples.  
 \*\* For systems collecting at least 40 samples/month:  
 \*\*\* Retake samples were negative, No Violation  
 MCL = Presence of Coliform bacteria in more than 5% of monthly positive samples.

| Radiological Contaminant | Date of Sampling | MCL/AL Violation? Y/N | Highest Level Detected | Range of Detected | MCLG | MCL | Possible Sources             |
|--------------------------|------------------|-----------------------|------------------------|-------------------|------|-----|------------------------------|
| Alpha Emitters (pCi/L)   | 03/14            | N                     | 1.6                    | 0– 1.6            | 0    | 15  | Erosion of natural deposits. |
| Radium 226 (pCi/L)       | 03/14            | N                     | 0.6                    | 0.4 - 0.6         | 0    | 5   | Erosion of natural deposits. |

| Inorganic Contaminants      | Date of Sampling | MCL/AL Violation? Y/N | Highest Level Detected | Range of Detected | MCLG | MCL | Possible Sources  |
|-----------------------------|------------------|-----------------------|------------------------|-------------------|------|-----|---|
| Barium (ppm)                | 03/14            | N                     | 0.015                  | 0.011 - 0.015     | 2    | 2   | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.   |
| Fluoride (ppm)              | 03/14            | N                     | 0.05                   | 0.03 - 0.05       | 4    | 4.0 | Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum level of 0.7 ppm. |
| Lead (point of entry) (ppb) | 03/14            | N                     | 1.1                    | 0.21 – 1.1        | 0    | 15  | Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder.  |
| Nickel (ppb)                | 03/14            | N                     | 0.87                   | 0.40 – 0.87       | N/A  | 100 | Pollution from mining and refining operations. Natural occurrence in soil.  |
| Nitrate (as Nitrogen) (ppm) | 03/15            | N                     | 2.0                    | ND - 2.0          | 10   | 10  | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.  |
| Selenium (ppb)              | 03/14            | N                     | 0.66                   | ND – 0.66         | 50   | 50  | Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.   |
| Sodium (ppm)                | 03/14            | N                     | 7.9                    | 4.6 – 7.9         | N/A  | 160 | Salt water intrusion, leaching from soil.   |

## Reedy Creek Improvement District 2015 Water Quality Test Results (Cont.)

| Stage 2 Disinfectants and Disinfection By-Products/ (D/DBP) |   |                    |                        |                  |         |                    |  |
|---|---|--------------------|------------------------|------------------|---------|--------------------|--|
| Contaminant   | Date of Sampling                              | MCL Violation? Y/N | Highest Level Detected | Range of Results | MCLG    | MCL (Action Level) | Disinfection By-Product Possible Sources   |
| Chlorine (ppm)  | 1/15 - 12/15                                  | N                  | 1.25*                  | 1.14 – 1.25      | MRDLG=4 | MRDL=4             | Water additive used to control microbes    |
| Haloacetic Acids (HAA5) (ppb)                               | 2/4/15,<br>5/7/15,<br>7/23/15,<br>and 11/2/15 | N                  | 22.7**                 | 6.7 – 30.2***    | N/A     | 60                 | By-product of drinking water disinfection. |
| TTHM (Total trihalomethanes) (ppb)                          | 2/4/15,<br>5/7/15,<br>7/23/15,<br>and 11/2/15 | N                  | 60.2**                 | 12.2 – 82.7 ***  | N/A     | 80                 | By-product of drinking water disinfection. |

**\*Annual average based on monthly chlorine residual averages for 2015. \*\*Highest Detected = Highest locational running annual average (LRAA) calculated using 4 sampling quarters in 2015. \*\*\*Range of detected includes individual samples at each of the Stage 2 D/DPB sampling locations.**

| Lead & Copper Tap Water Samples |                  |                   |                        |  |      |                   |   |
|---------------------------------|------------------|-------------------|------------------------|--|------|-------------------|---|
| Contaminant                     | Date of Sampling | AL Violation? Y/N | 90th Percentile Result | No. of sampling sites exceeding the AL | MCLG | AL (Action Level) | Disinfection By-Product Possible Sources  |
| Copper (ppm)                    | 6/18/14          | N                 | 0.36                   | 0                                      | 1.3  | 1.3               | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. |
| Lead (ppb)                      | 6/18/14          | N                 | 2.6                    | 0                                      | 0    | 15                | Corrosion of household plumbing systems; erosion of natural deposits.                                   |

### Abbreviation Key:

**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. MCL are set as close to the MCLGs as feasible using the best available treatment technology.

**MRDLG:** Maximum Residual Disinfectant 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 benefit 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.

**AL:** Action Level. The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**IDSE:** Initial Distribution System Evaluation is an important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The ISDE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from IDSE in conjunction with their Stage 1 DBPR compliance monitoring data, to select monitoring locations for Stage 2 DBPR.

**Locational Running Annual Average (LRAA):** the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

**ppm:** Parts per million or **mg/L:** milligrams per liter. One part by weight of analyte to 1 million parts by weight of the water sample.

**ppb:** Parts per billion or **µg/L:** micrograms per liter. . One part by weight of analyte to 1 billion parts by weight of the water sample.

**pCi/L:** Picocurie per liter. Measure of radioactivity in water.

**N/A:** Not applicable.

**ND:** Not detected (indicates that the substance was not found by the laboratory analysis).

## Water Conservation Measures Implemented at RCID

Water conservation and reuse practices within Reedy Creek Improvement District have continued to demonstrate a sustainable level of savings. Despite the level of growth within District boundaries since 2000, water consumption in 2015 was 1.11 billion gallons per year (over 3.11 million gallons of water per day (MGD)) lower than the water consumption in 2000.

Major factors contributing to the conservation efforts within RCID include increased use of reclaimed water and the use of a weather driven and computer controlled irrigation system. The system adjusts the irrigation cycles and frequencies to meet the optimum needs of the irrigated species. The system is able to evaluate a variety of factors, including rainfall and evapotranspiration, to achieve optimum irrigation efficiency and thereby ensure that no overwatering occurs. The system is employed on both potable and reclaimed water source irrigation.

### Efficient Touchless Faucets



### Hydrant on Reuse System

