



## 2018 ANNUAL DRINKING WATER QUALITY REPORT

# SOUTH MARTIN REGIONAL UTILITY (SMRU)

We are pleased to present to you this year's 2018 Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is: ground water from wells. The wells draw from the Surficial Aquifer and the Floridan Aquifer.

### **WATER SOURCE AND TREATMENT**

Your drinking water is obtained from two different sources, the Surficial Aquifer using shallow wells, and the deeper Floridan aquifer. The water from shallow wells is treated at two different water treatment plants by disinfection with chloramines. Water from the Floridan wells is treated by SMRU's Reverse Osmosis facility located at the South Water Treatment Facility. This deep groundwater is 'pressed' through membranes: filters with tiny holes, removing constituents from the water, and allowing only the clean water to pass through. The reverse osmosis product water is blended with water from the shallow well water treatment facilities. The North Water Treatment facility utilizes Nanofiltration technology to treat water from the surficial aquifer. After measures are taken to decrease the corrosion potential of the finished water, it is distributed.

In 2018, the Florida Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are eleven potential sources of contamination identified for this system with a low to high susceptibility level. The assessment results are available on the FDEP SWAPP website at <https://www.dep.state.fl.us/swapp> or they can be obtained from South Martin Regional Utility, 9000 SE Athena Street Hobe Sound, Florida 33455.

This report shows our water quality results and what they mean.

### **QUESTIONS?**

We at SMRU work around the clock to provide top quality water to our valued customers. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. If you have any questions about this report or SMRU, please contact the SMRU Customer Service office at **772-546-2511**. We encourage our customers to be informed about their drinking water.

### **MONITORING AND WATER QUALITY**

SMRU 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, 2018. Data obtained before January 1, 2018, and presented in this report is from the most recent testing done in accordance with the laws, rules, and regulations.

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

**SWP:** South Water Plant

**NWP:** North Water Plant

**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.

### Radioactive Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228 or combined radium (pCi/L) SWP	1/2017	N	1.2	N/A	0	5	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L) NWP	1/2017	N	0.3	N/A	0	5	Erosion of natural deposits

### Inorganic Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm) SWP	1/2018, 7/2018	N	0.512	0.306-0.512	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm) SWP	1/2017	N	40.8	N/A	N/A	160	Salt water intrusion, leaching from soil
Sodium (ppm) NWP	1/2017	N	48.5	N/A	N/A	160	Salt water intrusion, leaching from soil

### Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine and Chloramines (ppm)	1-12/2018	N	2.9	0.6 - 4.0	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
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
Haloacetic Acids (HAA5) (ppb)	7/2018	N	13	12.0-13.0	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	7/2018	N	24	19.0 - 24.0	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	AL Exceeded (Y/N)	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	6/27/2017	N	0.389	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/27/2017	N	1.49	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

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
E. coli (at the wellhead ground water source)*	6/2018	Y	1	0	0	Human and/or Animal Fecal Waste

\*On June 6, 2018, we sampled the source (Well 10S) for the fecal indicator, *E. coli*. We were notified on June 8 that Well 10S tested positive for *E. coli*. On June 8 Well 10S was removed from service for the well-head to be rebuilt. All 9 distribution systems samples taken on June 6, 2018 tested absent for *E. coli*. Distribution resamples taken on June 9th, 10th, and 11th were also absent of *E. coli*. Survey samples from Well 10S tested absent for *E. coli* on June 16-20th following the rebuild of the well-head. No Distribution water samples tested positive for *E. coli* from January 1, 2018 to December 31, 2018.

Health Effects: Fecal Coliforms and *E. Coli* are bacteria whose presence indicates that water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effect, 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.

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. SMRU 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 <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-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, 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 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**.

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/Center for Disease Control (CDC) 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**).