



**Marion County
Board of County Commissioners**

Utilities

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Annual Drinking Water Quality Report for 2016
Marion County Utilities – Spruce Creek Golf & Country Club
Florida Department of Environmental Protection Public Water System ID # 3425020

We're pleased to provide you with this year's Annual Water Quality Report. The 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 dependable supply of quality 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. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from five wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2016 the 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 two potential sources of contamination identified for our water system with Low susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If you have any questions about this report or concerning your water utility please contact **Marion County Utilities, (352) 307-4630**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Marion County Utilities routinely monitors for constituents 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, 2016. Data obtained before January 1, 2016, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR SPRUCE CREEK GOLF & COUNTRY CLUB								
Radioactive Contaminants								
Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	(pCi/L)	MAR '14	No	2.8	1.8 - 2.8	0	15	Erosion of natural deposits
Radium 228	(pCi/L)	MAR '14	No	1.5	1.0 - 1.5	0	5	Erosion of natural deposits
Inorganic Contaminants								
Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium	(ppm)	MAR '14	No	0.0057	0.0051 - 0.0057	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	MAR '14	No	1.6	ND - 1.6	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	MAR '14	No	0.12	ND - 0.12	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nickel	(ppb)	MAR '14	No	9.1	9.0 - 9.1	N/A	100	Pollution from mining and refining operations; natural occurrence in soil
Nitrate (as Nitrogen)	(ppm)	MAY '16	No	2.96	0.55 - 2.96	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	MAR '14	No	7.6	6.0 - 7.6	N/A	160	Salt water intrusion; leaching from soil
Stage 2 Disinfectants and Disinfection By-Products								
Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2016	No	1	0.9 - 1.3	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA ₅)	(ppb)	AUG '16	No	4.15	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	AUG '16	No	2.8	N/A	N/A	MCL = 80	By-product of drinking water disinfection
Lead and Copper (Tap Water)								
Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUN '14	No	0.45	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

"Meeting Needs by Exceeding Expectations"

In the table presented you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- **Action Level (AL)** – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Initial Distribution System Evaluation (IDSE)** - An important part of the Stage 1 Disinfection Byproducts Rule (DBPR). The IDSE 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 the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for Stage 2 DBPR.
- **Maximum Contaminant Level (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 (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.
- **Maximum Residual Disinfectant Level (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 growth.
- **Maximum Residual Disinfectant Level Goal (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 contamination.
- **ND** – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- **Parts per million (ppm) or milligrams per Liter (mg/L)** - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- **Parts per billion (ppb) or micrograms per Liter (µg/L)** - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- **Picocurie per liter (pCi/L)** - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State Requirements.

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. Marion County Utilities 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 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 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 storm water 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 storm water runoff, and septic systems.
- e. Radioactive contaminants, which may 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 which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) 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 from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

Our Mission: To protect water resources for current and future users by providing cost effective and environmentally sound supervision and operations of county owned water and wastewater facilities.



We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call us at (352) 307-4630.