



Marion County Board of County Commissioners

Utilities

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Annual Drinking Water Quality Report for 2016 Marion County Utilities – Marion Oaks

Florida Department of Environmental Protection Public Water System ID # 6421144

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.

The Marion Oaks Water System also serves the Summerglenn Country Club and Timberwalk Subdivisions. The source of our water is groundwater from seven wells located in the communities. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is aerated for sulfur removal, treated for corrosion control and chlorinated for disinfection purposes. In 2016 the Department of Environmental Protection performed a Source Water Assessment on our system to provide information about any potential sources of contamination in the vicinity of our wells. There is one potential source of contamination identified with a low level of concern. The assessment results are available of 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 MARION OAKS								
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)	FEB '15	No	6.6	ND - 6.6	0	15	Erosion of natural deposits
Radium 226	(pCi/L)	FEB '15	No	0.8	ND - 0.8	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
Antimony	(ppb)	JAN '14	No	5.5	ND - 5.5	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	(ppb)	JAN '14	No	0.5	ND - 0.5	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	JAN '14	No	0.0078	0.0021 - 0.0078	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	JAN '14	No	0.25	ND - 0.25	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)	JAN '14	No	7.4	ND - 7.4	N/A	100	Pollution from mining and refining operations; natural occurrence in soil
Nitrate (as Nitrogen)	(ppm)	MAY '16	No	2.19	ND - 2.19	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	JAN '14	No	13	4.5 - 13	N/A	160	Salt water intrusion; leaching from soil
Synthetic Organic Contaminants Including Pesticides and Herbicides								
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
Hexachlorobenzene	(ppb)	JAN '14	No	0.015	ND - 0.015	0	1	Discharge from metal refineries and agricultural chemical factories
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	1.2	1.0 - 1.4	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA ₅)	(ppb)	OCT '16	No	4.92	ND - 4.92	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	OCT '16	No	0.2	ND - 0.2	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)	AUG '14	No	0.27	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table for Marion Oaks (continued from Page 1)

Unregulated Contaminants Monitoring						
Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MRL	Average Level Detected	Range of Results	MCL	Likely Source of Contamination
Chlorate (ppb)	APR '14 - NOV '14	20	236	103 - 683	N/A	Agricultural defoliant or desiccant; disinfection byproduct
Chromium (ppb)	APR '14 - NOV '14	0.2	1.1	ND - 1.4	N/A	Natural occurring element found in soil
Hexavalent Chromium (Chromium-6) (ppb)	APR '14 - NOV '14	0.03	1.03	ND - 1.5	N/A	Naturally occurring element found in soil
Molybdenum (ppb)	APR '14 - NOV '14	1	2.2	ND - 11.8	N/A	Naturally occurring element found in ores and present in plants, animals and bacteria
Strontium (ppb)	APR '14 - NOV '14	0.3	604	42.2 - 1610	N/A	Naturally occurring element found in soil and present in plants and animals
Vanadium (ppb)	APR '14 - NOV '14	0.2	2.5	ND - 3.2	N/A	Naturally occurring elemental metal found in rocks and soils

We monitored for unregulated contaminants (UCs) in 2014 as part of a study to help the U. S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) or likely sources have been established for UCs, however, we are required to publish the detected analytical results of our UC monitoring in our annual water quality report. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791. For a complete list of results, including the non-detected contaminants, contact Mike Bryson at (352) 572-5239.

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)** – concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **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.
- **Minimum Reporting Level (MRL)** – the smallest concentration of a substance that can be reliably measured by using a given analytical method; established by rule
- **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:

- Microbial 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 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 storm water 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 storm water runoff, and septic systems.
- 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.