

2016 Water Quality Report

Gasparilla Island Water Association, Inc.

April 2017

A Message From GIWA

Gasparilla Island Water Association, Inc. (GIWA) is pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water, and services we deliver to you every day. 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.**

Our constant goal is to provide you with a safe and dependable supply of drinking water. GIWA produced 371 million gallons of quality drinking water in 2016.

Your water source is from groundwater wells that draw from both surficial and middle intermediate aquifers. Approximately 75% of the water comes from brackish water drawn from the middle intermediate aquifers, and treated by reverse osmosis (RO). The remaining 25% is shallow well water drawn from the surficial aquifer that is treated by a color removal plant. The treated water from both plants is blended, a polymer added for corrosion control, and then disinfected with chloramines before pumping to the water distribution system.

GIWA also purchases water from Charlotte County Utilities (CCU) when the demand for water exceeds production capabilities or when our plant is out of service for maintenance. CCU is connected to the Peace River Regional Water Treatment Plant. Last year we purchased thirty-eight (38) million gallons of water from CCU.

Last year, GIWA produced twenty-three (23) million gallons less water, but purchased twenty-seven (27) million more from CCU when compared to 2015; therefore, CCU's water quality data is included in this report. The increase in purchased water is primarily due to improvements underway at the water treatment plant that once complete will increase our treatment capacity 194,000 gallons per day. This will greatly reduce our dependency upon purchased water during peak flow periods. The upgrades have required complete and partial shut-downs of the reverse osmosis treatment plant. CCU water was purchased to offset our reduced production. The current construction schedule indicates this project will be complete in July 2017.

Members are encouraged to be informed about their water utility. If you have any questions about this report or concerning GIWA, please contact Bonnie Pringle, Utility Director at 941-964-2423. GIWA's Board meetings are held at 8:30 a.m. at our office (1700 East Railroad Avenue, Boca Grande) on the first Wednesday of each month.

This report will be mailed to customers upon request, and is also available at GIWA's office.

What Can I Expect to Find 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:

- **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 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.



Please **DO NOT FLUSH** your unused/unwanted medications down toilets or sink drains.
For more information on proper disposal, please visit
<http://www.dep.state.fl.us/waste/categories/medications/pages/disposal.htm>

How do I Read This Report?

GIWA 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, 2016. Data obtained before January 1, 2016, and presented in this report are 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:

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.

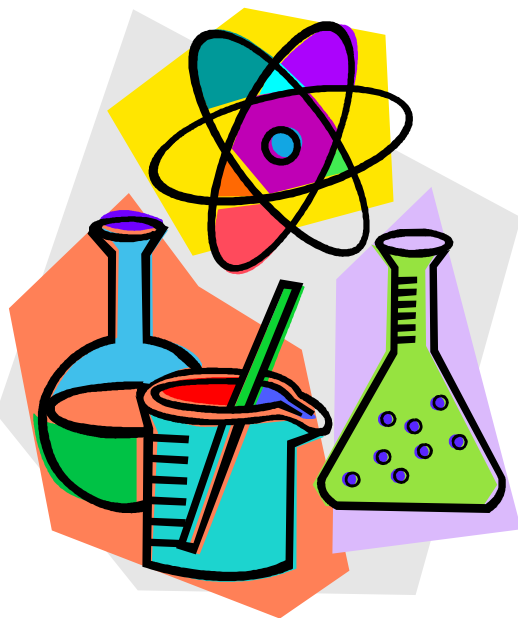
Maximum residual disinfectant level goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Nephelometric Turbidity Unit (NTU): measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per billion (ppb): one part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm): one part by weight of analyte to 1 million parts by weight of the water sample.

Picocurie per liter (pCi/L): measure of the radioactivity in water.



Gasparilla Island Water Association, Inc. 2016 Annual Drinking Water Quality Test Results

Inorganic Contaminants—Gasparilla Island Water Association, Inc.

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
Barium (ppm)	09/14	No	.0081	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (as Nitrogen) (ppm)	04/16	No	.03	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	09/14	No	115	N/A	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products—Gasparilla Island Water Assoc., Inc.

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)	Monthly 2016	No	1.9	.6 - 3.2	MRDLG = 4	MRDL = 4	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products—Gasparilla Island Water Assoc., Inc.

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 (five) (HAA5) (ppb)	08/16	No	25	21 - 25	N/A	60	By-Product of drinking water disinfection
TTHM (Total Trihalomethanes) (ppb)	08/16	No	43	41 - 43	N/A	80	By-Product of drinking water disinfection

Lead and Copper (Tap Water) - Gasparilla Island Water Association, Inc.

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Exceeded Y/N	90 th Percentile Result	Number of Sampling Sites Exceeding AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	08/14 & 09/14	No	.0795	None	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/14 & 09/14	No	1	None	0	15	Corrosion of household plumbing systems; erosion of natural deposits

We are pleased to report that our drinking water meets all federal and state requirements.

**Gasparilla Island Water Association, Inc.
2016 Annual Drinking Water Quality Test Results**

Microbiological Contaminants—Gasparilla Island Water Association, Inc.

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage/ Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (positive samples)	1/2016	No	1	0	Presence of coliform bacteria in >1 sample collected during the month	Naturally present in the environment

**2016 Annual Drinking Water Quality Test Results
Water Purchased From Charlotte County Utilities**

Radioactive Contaminants—Peace River Authority

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
Alpha emitters (pCi/L)	1/16 - 12/16	No	8.9	ND - 8.9	0	15	Erosion of natural deposits
Combined Radium (PCi/L)	1/16 - 12/16	No	1.0	.2 - 1.4	0	5	Erosion of natural deposits

Inorganic Contaminants—Peace River Authority

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
Barium (ppm)	1/16	No	.010	.010	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	1/16	No	.190	.190	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
Nickel (ppb)	1/16	No	2.0	2.0	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	1/16	No	.213	.213	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

2016 Annual Drinking Water Quality Test Results Water Purchased From Charlotte County Utilities

Inorganic Contaminants—Peace River Authority

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
Nitrite (as Nitrogen) (ppm)	1/16	No	.056	.056	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/16	No	44.5	44.5	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products - Charlotte County Utilities

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)	1/16 - 12/16	No	5.1	.6 - 4.7	MRDLG = 4	MCL = 4	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products—Charlotte County Utilities

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)	2/16, 5/16, 8/16, 11/16	No	33	12.4 - 36.9	N/A	60	By-Product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2/16, 5/16, 8/16, 11/16	No	41	30.9 - 49.7	N/A	80	By-Product of drinking water disinfection

Turbidity Contaminants—Peace River Authority

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Highest Single Result	The Lowest Monthly % of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	1/16 - 12/16	No	.5	100%	N/A	1.0	Soil runoff

Note: The result in the Lowest Monthly Percentage column is the lowest monthly percentage of samples reported in the Monthly Operating Report meeting the required turbidity limits. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organism, including bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Source Water Assessment Plan

In 2016 the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination near our wells. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

There are five potential sources of contamination identified for our system with levels of concerns for contamination ranging from low to moderate. The potential sources are industrial wastewater permits (low), and permits for fuel storage tanks (moderate) for concrete plants near our wells and GIWA's water treatment facility. Their permits include conditions that are designed to protect groundwater and are monitored by FDEP to insure compliance.

There are over 20,000 petroleum storage tanks (both underground and aboveground) in Florida. Since Florida relies on groundwater for approximately 92 percent of its drinking water needs, FDEP has a very active petroleum contamination prevention and cleanup program and some of the most stringent rules in the country.

Additionally, Charlotte County has a Wellhead Protection Ordinance in place that is designed to protect our water supply. This ordinance requires anyone wishing to conduct business within 1500' of our wells to enter an agreement with GIWA which contains specific conditions to protect our water supply from contamination as a result of their operation.

Lead in Drinking Water

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. GIWA 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>.

People with Special Concerns

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/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).