

THE ISLAND WATER ASSOCIATION, INC.



2016 Annual Drinking Water Quality Report

© THE ISLAND WATER ASSOCIATION, INC. June 2017 ISSUE 19

“Quality Water at a Reasonable Cost”

We are very pleased to provide you with our fifteenth Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide you with a high quality and a dependable supply of drinking water. We are also pleased to report that our drinking water meets and exceeds all federal and state requirements.



Where Does Your Water Come From?

The Suwannee Aquifer lies approximately 700 to 900 feet below the surface of Sanibel and Captiva Islands. This is the raw water source that is used to produce the drinking water for island residents. Our raw water source contains many minerals. It is brackish water that has a moderate salt content. The salt content of the raw water is the primary reason that Reverse Osmosis (R.O.) is used as IWA's treatment technology. The picture on the left shows the R.O. trains that remove not only the salt, but many other minerals as well and all finished water is chlorinated for disinfection purposes. The plant permitted capacity is currently at 5.99 MGD.



The Island Water Association Inc. routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2016. Monitoring results prior to this period are also displayed in the table. As water travels over the land or underground it can pick up substances such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily indicate that the water poses a health risk.

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. 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).

Stage 1 & 2 Disinfectant/Disinfection By-Product (D/DBP) Parameters							
Contaminant and Unit of Measurement	Dates of sampling (mo. /yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	Monthly	N	1.4	1.12-1.62	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Stage 2 TTHM [Total Trihalomethanes] (ppb)	2/3/2016-11//2016	N	4.6	0.25 - 4.6	N/A	MCL = 80	By-product of drinking water disinfection
Stage 2 Haloacetic Acids (HAA5) (ppb)	2/3/2016-11/2/2016	N	6.10	.37– 6.10	N/A	MCL = 60	By-product of drinking water disinfection
Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	Dates of sampling (mo. /yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	6/16	N	0.11	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/16	N	0.66	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Lead

If present elevated levels of lead can cause serious health problems to infants, young children and pregnant women are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using the water. Additional information is available from the Safe Drinking Water Hotline at (1-800-426-4791).

Radon

We constantly monitor the water supply for various constituents. We have detected Radon in the finished water supply in 2 out of 2 samples tested in 2016. There is no federal regulation for Radon in drinking water. Exposure to air transmitted Radon over a long period of time may cause adverse health effects.

Sources and Types of Contaminants in Source 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 storm water 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 can be naturally occurring or be the result of oil and gas production and mining activities.

In 2016 the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated four potential sources that have low susceptibility levels of contamination near our wells. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at: https://fldep.dep.state.fl.us/swapp/DisplayPWS.asp?pws_id=5360146

Definitions

MGD – million gallons per day.

Non-Detects (ND) – Laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) – One part per million is the equivalent of one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter – One part per billion is the equivalent of one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Picocuries per liter (pCi/L) – Picocuries per liter is a measure of the radioactivity in water.

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

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected health risks. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Contaminant Level – The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs (see below) as feasible using the best available treatment techniques.

Maximum Contaminant Level Goal – The “Goal” (MCLG) is 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.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water. “The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.”

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
Alpha emitters (pCi/l)	3/14, 6/14 9/14, 12/14	N	4.1	ND – 4.1	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/l)	3/14, 6/14 9/14, 12/14	N	1.2	0.8 – 1.2	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
Fluoride (ppm)	6/14	N	0.089	N/A	4.0	4.0	Erosion of natural deposits; water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm; discharge from fertilizer and aluminum factories
Nickel (ppb)	6/14	N	2.0	N/A	N/A	100	Natural occurrence in soil. Pollution from mining and refining operations.
Sodium (ppm)	6/14	N	130	N/A	N/A	160	Salt water intrusion, leaching from soil
Arsenic (ppb)	6/14	N	2.6	N/A	0	10	Erosion of natural deposits; runoff from orchards, runoff from glass & electronics production wastes
Barium (ppm)	6/14	N	0.0009	N/A	2.0	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Selenium (ppb)	6/14	N	7.2	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Other Useful Information

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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for the public health.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 at (1-800-426-4791).

To Our Customers:

We are pleased to report that your drinking water is safe and meets and exceeds all federal and state requirements. If you have any questions about this report or concerning your water utility, please contact our Production Manager, Patrick A. Henry, at 1-239-472-1502. Additional copies of this report are available upon request. We want our valued customers to be informed about their water utility.

If you want to learn more, please attend our Annual Meeting that is held each spring at our main office. Watch for the "*IWA Pipeline*" newsletter in your mailbox for the date and time. Please visit our Web site at www.islandwater.com.

We at The Island Water Association work around the clock to provide top quality drinking water to all customers connected to our system. 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.