

Lighthouse Utilities Company Inc. **2018 Annual Drinking Water Quality Report**

We're pleased to present to you this year's 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 2 wells. The wells draw from the Floridan Aquifer. Because of the excellent quality of our water, the only treatment required is aeration for hydrogen sulfide removal and chlorine for disinfection purposes. We also received water from the City of Port St. Joe in 2018. Port St. Joe obtains their water from the Chipola River Canal. Their water is pretreated with lime followed by enhanced coagulation and flocculation, clarification, submerged membrane micro-filtration, disinfection, and closed with a corrosion inhibitor.

In 2018 the Florida Department of Environmental Protection performed a Source Water Assessment on Lighthouse Utilities system and a search of the data sources indicated no potential sources of contamination near our wells. A Source Water Assessment was also performed on the City of Port St. Joe. Their surface water system is considered to be at high risk due to the many potential sources of contamination present in their assessment area. 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 **Larry McArdle at (850) 227-5349**. We encourage our valued customers to be informed about their water utility.*

Lighthouse Utilities 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 are from the most recent testing done in accordance with the laws, rules, and regulations.

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.

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.*

"ND": *means not detected and indicates that the substance was not found by laboratory analysis.*

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g/l}$): *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.*

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

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

2018 Water Quality Results Table

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
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Microbiological Contaminants

Turbidity (NTU) (City of Port St. Joe only)	Jan-2018 thru Dec-2018	N	0.238	100	NA	TT	Soil runoff
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Turbidity is a measure of cloudiness of the water and has no health effects. Port St. Joe monitors it because it is a good indicator of the effectiveness of their filtration system. High turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. They had no turbidity exceedances in 2018.

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
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Radioactive Contaminants

Alpha emitters (pCi/L)	Aug-2014 thru Oct-2017	N	3.5	ND – 3.5	0	15	Erosion of natural deposits
Uranium(ppb) (City of Port St. Joe only)	May-2017	N	0.888	NA	0	30	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	Aug-2014 & May-2017	N	2.2	0.6 - 2.2	0	5	Erosion of natural deposits

Inorganic Contaminants

Barium (ppm)	May-2017 & April-2018	N	0.03	0.02 – 0.03	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	May-2017 & April-2018	N	4.0	ND – 4.0	4	4.0	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
Lead (point of entry) (ppb)	May-2017 & April-2018	N	0.1	ND-0.1	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen) (ppm)	May-2017 thru Nov-2018	N	0.29	ND-0.29	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	May-2017 thru Nov-2018	N	0.023	ND-0.023	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nickel (ppb)	May-2017 & April-2018	N	3.1	ND-3.1	NA	100	Pollution from mining and refining operations. Natural occurrence in soil
Mercury (inorganic) (ppb)	May-2017 & April-2018	N	0.1	ND-0.1	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Sodium (ppm)	May-2017 & April-2018	N	22	9.1 - 22	N/A	160	Salt water intrusion, leaching from soil

Synthetic Organic Contaminants including Pesticides and Herbicides

2,4-D(ppb)	Oct-2011 & May-2018	N	0.11	ND - 0.11	70	70	Runoff from herbicide used on row crops
Dalapon (ppb)	Oct-2011 & Oct-2018	N	1.7	ND – 1.7	200	200	Runoff from herbicide used on rights of way

Volatile Organic Contaminants

Xylenes (ppm)	Sep-2017 thru Nov-2018	N	0.00076	ND-0.00076	10	10	Discharge from petroleum factories; discharge from chemical factories
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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
Stage 2 Disinfectants and Disinfection By-Products							
*Chlorine (ppm) (Stage 1)	Jan – Dec 2018	N	1.1	0.44 – 2.09	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
*Haloacetic Acids (HAA5) (ppb)	Quarterly 2018	Y	62.38	18.9 – 72.1	N/A	60	By-product of drinking water disinfection
*Haloacetic Acids (HAA5)- Barrier Dunes Unit #2 (ppb)	Quarterly 2018	Y	62.38	23.2 – 72.1	N/A	60	By-product of drinking water disinfection
*Total Trihalomethanes (TTHM) (ppb)	Quarterly 2018	Y	114.38	45.2 – 103	N/A	80	By-product of drinking water disinfection
*Total Trihalomethanes (TTHM)- Barrier Dunes Unit #2 (ppb)	Quarterly 2018	Y	114.38	71.9-103	N/A	80	By-product of drinking water disinfection
*Total Trihalomethanes (TTHM)- 7182 SR-30-E (ppb)	Quarterly 2018	Y	90	45.2 – 79.5	N/A	80	By-product of drinking water disinfection
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
Lead and Copper (Tap Water)							
*Copper (tap water) (ppm)	Jun – Sept 2017	N	0.65	0 of 20	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
*Lead (tap water) (ppb)	Jun – Sept 2017	N	13	1 of 20	0	15	Corrosion of household plumbing systems; erosion of natural deposits
Unregulated Contaminants							
Contaminant (Unit of Measurement= ppb)	Dates of sampling (mo/yr)	Level Detected (average)	Range	Likely Source of Contamination			
*HAA5	May-2018	83.4	76.74-90.0	Unavailable			
*HAA6Br	May-2018	9.02	8.10-9.94	Unavailable			
*HAA9	May-2018	92.02	85.94-98.10	Unavailable			

*Samples from Lighthouse Utilities only. All other data, unless otherwise noted, consist of samples collected by both Lighthouse Utilities and the City of Port St. Joe.

In May of 2018, Lighthouse Utilities monitored for unregulated contaminants (UCs) 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. Due to the impact of Hurricane Michael, EPA was not able to arrange for the samples we collected in November 2018 to be delivered to the laboratory for analysis. As a result, we will be collecting this round of sample in 2019 and the results will be included in our 2019 water quality report. 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 analytical results of our UC monitoring in our annual water quality report. All detections are shown on the table, but if you would like a copy of our 2018 or upcoming 2019 UC data, contact this water system at the number provided in this 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

Port St. Joe also monitored for unregulated contaminants (UCs) in 2018. We are pleased to report that they had no detections of any of the contaminants tested in 2018. They will also continue to monitor in 2019. Those results will be published as required in our 2019 Water Quality Report. However, if you would like a copy of the 2018 or the 2019 results sooner than the next report, please contact Chad Mack at 850-229-6395 to get a copy as soon as they are available.

TTHM (Total Trihalomethanes): In 2018, Lighthouse Utilities had MCL violations for Total Trihalomethanes (TTHM) in February and May 2018 at Barrier Dunes Unit #2 and 7182 SR-30-E. We also had an MCL violation for HAA5 in February 2018 at Barrier Dunes Unit #2. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. We routinely flush distribution system lines and have cleaned each of our ground storage tanks to try and resolve the issue in hopes of insuring compliance in the future.

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. Lighthouse 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 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.*

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.

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).

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