

2022 Annual Drinking Water Quality Report

City of Springfield

We're very pleased to provide you with this year's 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 to you a safe and dependable supply of drinking water.

Our water source is surface water drawn from Deer Point Reservoir. In 2022 the Florida 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 surface water intakes. The surface water system is considered to be at high risk because of the many potential sources of contamination present in the assessment area. The assessment results are available on the FDEP Source Water Assessment and Protection Program (SWAPP) website at <https://fldep.dep.state.fl.us.swapp/> or they can be obtained from Bay County Utility Services by calling 850-248-5010.

The Bay County Water Treatment Plant uses a conventional treatment process consisting of coagulation, flocculation, sedimentation, filtration, pH adjustment, disinfection, fluoridation, and corrosion control. The treatment process includes adding lime occasionally to provide additional alkalinity to the raw water so it can react with the primary coagulating chemical, ferric sulfate, which is added to remove particles and organics. Polymer is also added to assist in the coagulation process. Sodium Hypochlorite is added to maintain disinfection in the distribution system. The addition of zinc orthophosphate reduces the corrosiveness of the water. Fluoride, in the form of hydrofluorosilicic acid, is added as a supplement to prevent tooth decay. Lime is also added at the end of the process to increase the pH. These processes are needed to meet the drinking water standards as set by the United States Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).

If you have any questions about this report or concerning your water utility, please contact Jeanie Baldwin, Public Works Administrative Assistant at 850-872-7570, Ext. 103. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first Monday of each month at City Hall located at 408 School Ave., Springfield, Florida.

The City of Springfield routinely monitors for lead and copper levels, chlorine, Stage 2 DDBP, and bacteriological contaminants. The Bay County Water System monitors for all other 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, 2022. Data obtained before January 1, 2022 and presented in this report is 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.

Level 1 Assessment: A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Not Detected (ND): 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.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

2022 CONTAMINANTS TABLE

Microbiological Contaminants								
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	TT Violation	Result	MCLG	TT	Likely source of Contamination		
Total Coliform Bacteria	1/22 – 12/22	Y	Positive	N/A	TT	Naturally present in the environment		
During the past year, we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take no corrective actions.								
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	
Turbidity (MTU)	1/22 – 12/22	N	0.38	99.5	N/A	TT	Soil runoff	
Turbidity has no health effects. However, 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. High turbidity can hinder the effectiveness of disinfectants. The Treatment Technique standard requires that 95% of the turbidity readings be at 0.3 NTU or less.								
Radioactive Contaminants								
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL/TT Violation Y/N	The Highest Single Measurement	The Lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination	
Radium 226 & 228 or Combined radium (pCi/L)	3/17 & 4/20	N	1.54	ND-1.54	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	
Barium (ppm)	Apr. 2022	N	0.0	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Fluoride (ppm)	Apr. 2022	N	0.72	N/A	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	
Nitrate (as Nitrogen) (ppm)	Apr. 2022	N	0.093	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Sodium (ppm)	Apr. 2022	N	3.2	N/A	N/A	160	Saltwater intrusion, leaching from soil	
Stage 1 Disinfectants and Disinfection By-Products								
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	TT Violation Y/N	Lowes Running Annual Average, Computed Quarterly of Monthly Removal, Ratios		Range of Monthly Removal Ratios	MCLG	MCL	Likely Source of Contamination
Total organic carbon	1/22 – 12/22	N	2.3		1.8 - 2.3	N/A	TT	Naturally present in the environment
Stage 2 Disinfectants and Disinfection By-Products								
Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL OR MRDL violation	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination	
*Chlorine (ppm)- Stage 1	1/22 – 12/22	N	0.56	.47 - .64	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes	
*Haloacetic Acids (HAA5) (ppb)	1/22 -12/22	N	35.7	8.4 - 58	N/A	MCL=60	By-product of drinking water disinfection	
*Total Trihalomethanes (TTHM) (ppb)	1/22 – 12/22	N	49.25	9.5 - 63.6	N/A	MCL=80	By-product of drinking water disinfection	

Lead and Copper (Tap Water)							
Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	AL Exceeded	90th Percentile Result	No of sampling sites exceeding the AL	MCLG	AL	Likely Source of Contamination
*Copper (tap water) (ppm)	Jun – Sep 20	N	0.38	1 of 30	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
*Lead (tap water), (ppb)	Jun-Sep 20	N	.0043	0 of 30	0	15	Corrosion of household plumbing systems, erosion of natural deposits

*Sampled by City of Springfield. All other data sampled by Bay County.

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. City of Springfield 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.

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.

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/Center for Disease Control (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).

We at City of Springfield would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to insuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed.

Please DO NOT FLUSH your unused/unwanted medications down toilets or sink drains. More information is available at <http://www.dep.state.fl.us/waste/categories/medications/pages/disposal.htm>

Even trash that is illicitly dumped away from our water bodies can still be a threat to the ecosystem. Runoff from contaminated soil as a result of illegal dumping can end up making its way to surface water. Illicit discharge is also a threat. Pouring common contaminants such as motor oil, paint, mothballs, household cleaners, and yard waste to name a few can cause illicit discharge into our stormwater system.