

# ANNUAL WATER QUALITY REPORT

Reporting Year 2022



*Presented By*





## Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. For more information about this report, or for any questions relating to your drinking water, please call Derek Rizzuto, Lead Water Operator, at (850) 265-6361.

## Water Treatment Process

The City of Lynn Haven has five deep wells that serve the majority of Lynn Haven customers. The raw water from wells is aerated to remove excess hydrogen sulfide and stored in two central locations. One site utilizes a poly-orthophosphate blend to sequester soluble iron. The water is then chlorinated and pumped to the distribution system as needed to maintain satisfactory pressure throughout the system for daily use and fire protection.

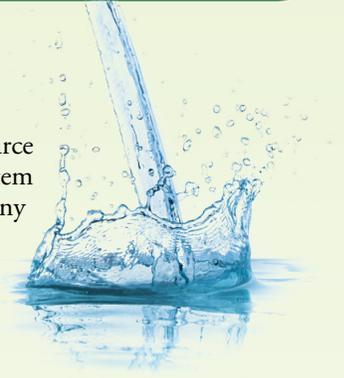
The Bay County Water Treatment Plant draws from Deer Point Reservoir. Bay County has a surface water treatment plant that supplies the remainder of Lynn Haven customers. It uses a conventional treatment process of coagulation, flocculation, sedimentation, filtration, pH adjustment, disinfection, fluoridation, and corrosion control. The treatment process includes the addition of lime to complete the reaction of coagulation and ferric sulfate to remove particles and organics. Polymer is 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 set by the U.S. EPA and the Florida Department of Environmental Protection (FDEP).

## Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

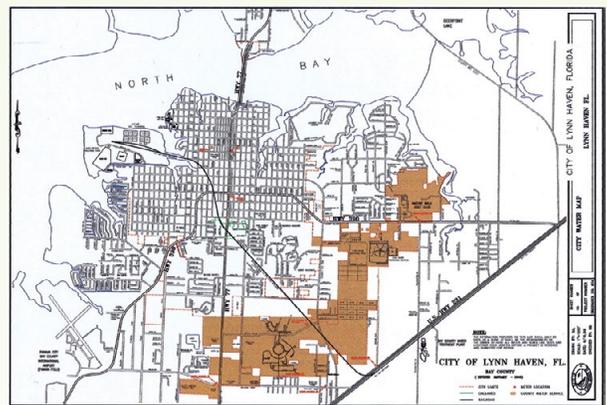
## Source Water Assessment

In 2022 FDEP performed a source water assessment on our system to provide information about any potential sources of contamination in the vicinity of our five wells. For the City of Lynn Haven's water system, there are nine potential sources of contamination identified, with low to moderate susceptibility levels.



FDEP also performed a source water assessment on the Bay County water system in 2022 to provide information about any potential sources of contamination in the vicinity of Bay County surface water intakes. The surface water system is considered to be at high risk because of 10 potential sources of contamination present in the assessment area.

Assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp), or they can be obtained by calling Lynn Haven Utilities Department at (850) 265-6361 or Bay County Utility Services at (850) 872-4785.



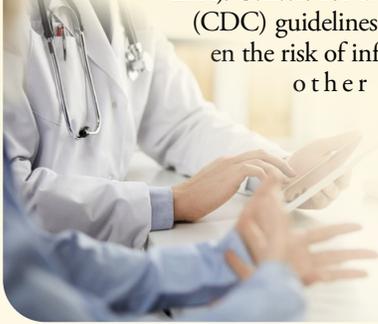
## Where Does My Water Come From?

The City of Lynn Haven customers are fortunate because they enjoy an abundant water supply from two sources: groundwater from the Floridan Aquifer and surface water purchased from Bay County Utilities. The map of Lynn Haven presented here is color-coded to show the area served by the two water sources. The area of Lynn Haven that is served by Bay County Water is shaded; the area served by Lynn Haven's deep wells is the unshaded portion of the map.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention

(CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## Substances That Could Be in 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 U.S. 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Level 1 Assessment Update

Coliforms are bacteria that are naturally present in the environment and used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct an assessment to identify and correct any problems.

During the past year, we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. We were not required to take any corrective actions.

## Community Participation

We have commission meetings you may attend to voice your concerns. We meet the second Tuesday of each month at 9:00 a.m. and the fourth Tuesday of each month at 5:00 p.m.



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

PRIMARY REGULATED CONTAMINANTS										
Microbiological Contaminants										
City of Lynn Haven					Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	HIGHEST SINGLE MEASUREMENT	LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS	DATES OF SAMPLING (MO./YR.)	HIGHEST SINGLE MEASUREMENT	LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
<b>Turbidity (NTU)</b>	No	NA	NA	NA	January–December 2022	0.38	99.5	NA	TT = 95% of samples meet the limit	Soil runoff
RADIOACTIVE CONTAMINANTS										
City of Lynn Haven					Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
<b>Radium 226 + 228 [combined radium] (pCi/L)</b>	No	November 2020	1	0.6–1	April 2020	1.54	ND–1.54	0	5	Erosion of natural deposits
Inorganic Contaminants										
City of Lynn Haven					Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
<b>Barium (ppm)</b>	No	March 2020	0.036	0.035–0.036	April 2022	ND	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Fluoride (ppm)</b>	No	March 2020	0.49	0.47–0.49	April 2022	0.72	NA	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive that promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
<b>Lead [point of entry] (ppb)</b>	No	March 2020	2.4	ND–2.4	April 2020	ND	NA	NA	15	Residue from human-made pollution such as auto emissions and paint; lead pipe, casing, and solder
<b>Nitrate [as nitrogen] (ppm)</b>	No	March 2021	ND	NA	April 2022	0.093	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Sodium (ppm)</b>	No	March 2020	47	45–47	April 2022	3.2	NA	NA	160	Saltwater intrusion; leaching from soil

### STAGE 1 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

		City of Lynn Haven			Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
Chlorine (ppm)	No	January–December 2022	1.5	1.4–1.7	January–December 2022	0.95	0.66–1.1	[4]	[4.0]	Water additive used to control microbes

		City of Lynn Haven			Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	TT VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	LOWEST RUNNING ANNUAL AVERAGE, COMPUTED QUARTERLY, OF MONTHLY REMOVAL RATIOS	RANGE OF MONTHLY REMOVAL RATIOS	DATES OF SAMPLING (MO./YR.)	LOWEST RUNNING ANNUAL AVERAGE, COMPUTED QUARTERLY, OF MONTHLY REMOVAL RATIOS	RANGE OF MONTHLY REMOVAL RATIOS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Total Organic Carbon [TOC] (ppm)	No	NA	NA	NA	January–December 2022	2.3	1.8–2.3	NA	TT <sup>1</sup>	Naturally present in the environment

### STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

		City of Lynn Haven			Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Haloacetic Acids (five) [HAA5]–Stage 2 (ppb)	No	February–November 2022	19.4	13–25.9	February–November 2022	23.3	5.4–36.0	NA	60	By-product of drinking water disinfection
TTHM [total trihalomethanes]–Stage 2 (ppb)	No	February–November 2022	52.5	45.4–66.4	February–November 2022	16.1	7.9–27.5	NA	80	By-product of drinking water disinfection

### Lead and Copper (Tap water samples were collected from sites throughout the community)

		City of Lynn Haven			Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	AL EXCEEDANCE (YES/NO)	DATES OF SAMPLING (MO./YR.)	90TH-PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	DATES OF SAMPLING (MO./YR.)	90TH-PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
Copper [tap water] (ppm)	No	July 2020	0.13	0	August 2020	0.41	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead [tap water] (ppb)	No	July 2020	1.3	0	August 2020	1.0	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

### SECONDARY CONTAMINANTS

		City of Lynn Haven			Bay County					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	HIGHEST RESULT	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	HIGHEST RESULT	RANGE OF RESULTS	MCLG	SMCL	LIKELY SOURCE OF CONTAMINATION
Iron (ppb)	No <sup>2</sup>	May–November 2020	0.52	ND–0.52	April 2020	ND	NA	NA	300	Natural occurrence from soil leaching

<sup>1</sup> The monthly TOC removal ratio is the ratio between actual TOC removal and TOC rule removal requirements.

<sup>2</sup> There is no violation for iron due to sequestering on-site.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

**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.

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**SMCL (Secondary Maximum Contaminant Level):** These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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