

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

*Presented By*





## Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, water conservation, and community outreach and education, while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

## Source Water Assessment

In 2020, the 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 five wells. For the City of Lynn Haven Water System, there are six potential sources of contamination identified with low to moderate susceptibility levels. Also in 2020, the Department of Environmental Protection performed a Source Water Assessment on the Bay County Water System. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of The Bay County surface water intakes. The surface water system is considered to be at high risk because of many potential sources of contamination present in the assessment area. The 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 from Lynn Haven Utilities Department by calling (850) 265-6361 and/or from Bay County Utility Services by calling (850) 872-4785.

## What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (back-pressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (back-siphonage).

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We remain vigilant in delivering the best-quality drinking water  
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Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.



## Community Participation

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



## Cross-Connection Control Requirement Violation (State)

Our Cross-Connection Control (CCC) Program failed to meet minimum requirements of Rule 62-555.360, FAC. We have adopted a revised CCC plan to bring the City of Lynn Haven into compliance, once fully enforced. The city has been working diligently with residents to have everyone in compliance with this plan as soon as possible.

### 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 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 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 Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

### Lead in Home Plumbing

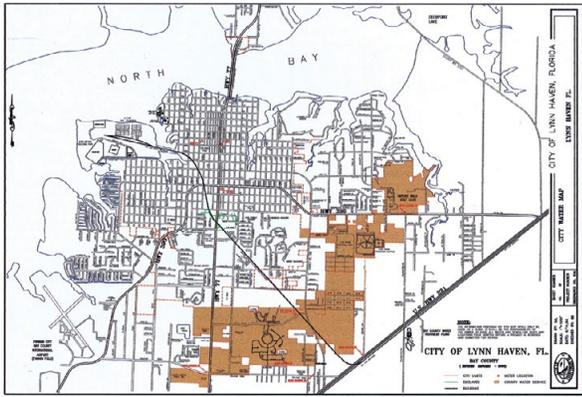
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but 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 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

### 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. EPA/CDC (Centers for Disease Control and Prevention) 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>.**



**QUESTIONS?** For more information about this report, or for any questions related to your drinking water, please call Derek Rizzuto, Lead Water Operator, at (850) 265-6361.



## 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 shown 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.

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. 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. Bay County uses a conventional treatment process of coagulation, flocculation, sedimentation, filtration, pH adjustment, disinfection, fluoridation, and corrosion control. The treatment process includes adding lime to complete the reaction of coagulation and the addition of ferric sulfate to remove particles and color. 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 hydrofluosilicic 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 (U.S EPA) and the Florida Department of Environmental Protection (FDEP).

## 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.

**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.

## Water Conservation Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So, get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

## 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

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	City of Lynn Haven		Bay County		MCLG	MCL	LIKELY SOURCE OF CONTAMINATION	
			THE HIGHEST SINGLE MEASUREMENT	THE LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS	DATES OF SAMPLING (MO./YR.)	THE HIGHEST SINGLE MEASUREMENT				THE LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS
<b>Turbidity (NTU)</b>	No	NA	NA	NA	Jan. 2020–Dec. 2020	0.58	97.2	NA	TT	Soil runoff

### RADIOACTIVE CONTAMINANTS

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	City of Lynn Haven		Bay County		MCLG	MCL	LIKELY SOURCE OF CONTAMINATION	
			LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED				RANGE OF RESULTS
<b>Radium 226 + 228 [Combined Radium] (pCi/L)</b>	No	Nov. 2020	1	0.6–1	Apr. 2020	ND	NA	0	5	Erosion of natural deposits

#### Inorganic Contaminants

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	City of Lynn Haven		Bay County		MCLG	MCL	LIKELY SOURCE OF CONTAMINATION	
			LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED				RANGE OF RESULTS
<b>Barium (ppm)</b>	No	Mar. 2020	0.036	0.035–0.036	Apr. 2020	0.01	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Fluoride (ppm)</b>	No	Mar. 2020	0.49	0.47–0.49	Apr. 2020	0.68	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	Mar. 2020	2.4	ND–2.4	Apr. 2020	ND	NA	NA	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
<b>Nitrate [as Nitrogen] (ppm)</b>	No	Mar. 2020	ND	NA	Apr. 2020	0.075	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Sodium (ppm)</b>	No	Mar. 2020	47	45–47	Apr. 2020	3.8	NA	NA	160	Salt water intrusion; leaching from soil

### STAGE 1 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATES OF SAMPLING (MO./YR.)	City of Lynn Haven		Bay County		MRDLG	MRDL	LIKELY SOURCE OF CONTAMINATION	
			LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED				RANGE OF RESULTS
<b>Chlorine (ppm)</b>	No	Jan. 2020–Dec. 2020	1.5	1.1–2	Jan. 2020–Dec. 2020	1.01	0.7–1.1	4	4.0	Water additive used to control microbes

## STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	City of Lynn Haven			Bay County			MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
		DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS			
<b>Haloacetic Acids (five) [HAA5]</b> (ppb)	No	Feb. 2020–Nov. 2020	20.73	10.1–21.9	Feb. 2020–Nov. 2020	26.25	5.2–38.6	NA	60	By-product of drinking water disinfection
<b>TTHM [Total trihalomethanes]</b> (ppb)	No	Feb. 2020–Nov. 2020	54.93	37.4–58.7	Feb. 2020–Nov. 2020	25.78	3.6–47.6	NA	80	By-product of drinking water disinfection

### Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community

CONTAMINANT AND UNIT OF MEASUREMENT	AL EXCEEDANCE (YES/NO)	City of Lynn Haven			Bay County			MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
		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			
<b>Copper [tap water]</b> (ppm)	No	Jul. 2020	0.13	0	Aug. 2020	0.41	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead [tap water]</b> (ppb)	No	Jul. 2020	1.3	0	Aug. 2020	1.0	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

## SECONDARY CONTAMINANTS

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	City of Lynn Haven			Bay County			MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
		DATES OF SAMPLING (MO./YR.)	HIGHEST RESULT	RANGE OF RESULTS	DATES OF SAMPLING (MO./YR.)	HIGHEST RESULT	RANGE OF RESULTS			
<b>Iron</b> (ppm)	No	May 2020–Nov. 2020	0.52 <sup>2</sup>	ND–0.52	Apr. 2020	ND	NA	NA	0.30	Natural occurrence from soil leaching

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

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