



Presented By
City of Lynn Haven

ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2017



Quality First

Once again we are pleased to present our annual water quality report. 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, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us the opportunity to serve you and your family.

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 or at www.epa.gov/lead.

Water treatment is a complex, time-consuming process.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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>.



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 that 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 that must provide the same protection for public health.

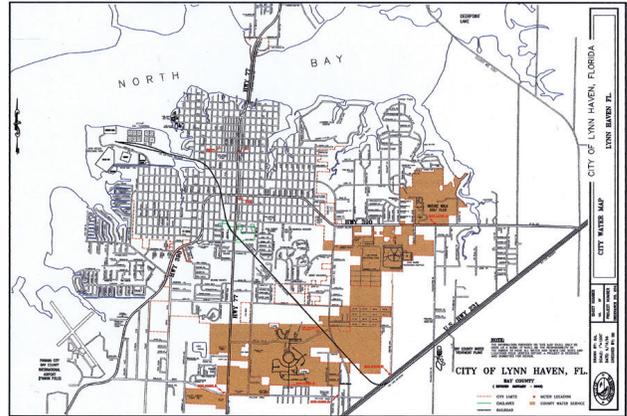
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

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 areas 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 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 (U.S EPA) and the Florida Department of Environmental Protection (FDEP).



Source Water Assessment

In 2017 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 5 wells. For the City of Lynn Haven Water System, six potential sources of contamination were identified, with low to moderate susceptibility levels.

Also in 2017, the FDEP 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 Web site at www.dep.state.fl.us/swapp or they can be obtained from the Lynn Haven Utilities Department by calling (850) 265-0087 and/or from Bay County Utility Services by calling (850) 872-4785.

Community Participation

We have commission meetings you may attend and voice your concerns. We meet the second Tuesday of each month beginning at 4:00 p.m. and the fourth Tuesday of each month at 6:00 p.m. in the Chambers, located at 108 East 9th St. in Lynn Haven, Fl.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Derek Rizzuto, Water Department Lead Operator, at (850) 265-0087.



BY THE NUMBERS

The number of gallons of water produced daily by public water systems in the U.S.

34
BILLION

1
MILLION

The number of miles of drinking water distribution mains in the U.S.

The amount of money spent annually on maintaining the public water infrastructure in the U.S.

135
BILLION

300
MILLION

The number of Americans who receive water from a public water system.

The age in years of the world's oldest water found in a mine at a depth of nearly two miles.

2
BILLION

151
THOUSAND

The number of active public water systems in the U.S.

The number of highly trained and licensed water professionals serving in the U.S.

199
THOUSAND

93

The number of federally regulated contaminants tested for in drinking water.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily 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 often 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 (Bay County)										
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	THE HIGHEST SINGLE MEASUREMENT		THE LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS			MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Turbidity ¹ (NTU)	No	Jan 17–Dec 17	0.69		97.2			NA	TT	Soil runoff
Radioactive Contaminants										
City of Lynn Haven										
Bay County										
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Radium 226 + 228 [Combined Radium] (pCi/L)	No	Jul-11	0.8	ND–0.8	Apr-17	1.5	NA	0	5	Erosion of natural deposits
Inorganic Contaminants										
Barium (ppm)	No	Feb-17	0.03	0.03–0.03	Apr-17	0.0096	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	No	Feb-17	0.47	0.45–0.47	Apr-17	0.046	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
Mercury [inorganic] (ppb)	No	Feb-17	0.6	ND–0.6	Apr-17	ND	NA	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel (ppb)	No	Feb-17	ND	NA	Apr-17	3.1	NA	NA	100	Pollution from mining and refining operations; natural occurrence in soil
Nitrate [as Nitrogen] (ppm)	No	Feb-17	0.11	ND–0.11	Apr-17	0.11	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	No	Feb-17	36	36–36	Apr-17	4.3	NA	NA	160	Salt water intrusion; leaching from soil
State 1 Disinfectants/Disinfection By-Products										
City of Lynn Haven										
Bay County										
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
Chlorine (ppm)	No	Jan 17–Dec 17	1.48	1.2–1.7	Jan 17–Dec 17	0.88	0.70–1.0	[4]	[4.0]	Water additive used to control microbes
City of Lynn Haven										
Bay County										
CONTAMINANT AND UNIT OF MEASUREMENT	TT VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR)	ANNUAL AVERAGE MONTHLY REMOVAL RATIO	RANGE OF MONTHLY REMOVAL RATIOS	DATE OF SAMPLING (MO./YR)	ANNUAL AVERAGE MONTHLY REMOVAL RATIO	RANGE OF MONTHLY REMOVAL RATIOS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Total Organic Carbon ² (ppm)	No	NA	NA	NA	Jan 17–Dec 17	1.54	1.00–2.00	NA	TT	Naturally present in the environment

STAGE 2 DISINFECTANTS/DISINFECTION BY-PRODUCTS

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	City of Lynn Haven			Bay County			MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
		DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS			
Haloacetic Acids (five) [HAA5] (ppb)	No	Jan 17–Dec 17	22.5	7.9–41.9	Jan 17–Dec 17	21.9	4.1–50.3	NA	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] ³ (ppb)	No	Jan 17–Dec 17	63.1	7.8–87.0	Jan 17–Dec 17	37.2	7.4–80.1	NA	80	By-product of drinking water disinfection

Lead and Copper (Tap water samples were collected from 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
		DATE OF SAMPLING (MO./YR.)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	DATE OF SAMPLING (MO./YR.)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL			
Copper [tap water] (ppm)	No	Jul-17	0.25	0	Aug-17	0.37	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead [tap water] (ppb)	No	Jul-17	1.6	1	Aug-17	0.7	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

¹Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. 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.

²The monthly TOC removal ratio is the ratio between the actual TOC removal and the TOC rule removal requirements.

³Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

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).

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