

# Put-in-Bay Village Public Water System

## 2020 Drinking Water Consumer Confidence Report

Prepared for 2019 Operations

### Introduction

The Put-in-Bay Village Public Water System has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts. In **2019** we had a conditional license to operate our water system. The conditions require us to address ongoing violations. For more information on these violations contact Jaime Mendoza at 419-285-8545. Public participation and comment regarding the water system are encouraged at regular meetings of Village Council, which meets the second Tuesday of every month at 9 am at Village Hall. For more information about your drinking water and for an additional copy of the 2019 consumer confidence report contact **Jaime Mendoza at 419-285-8545**.

### Source Water Information

The Put-in-Bay Village Public Water System receives its drinking water from the **Western Basin of Lake Erie** located in northern Ohio. This is a surface water system. The state performed an assessment of our source water in 2003. For the purposes



of source water assessments, all surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from the source to the intake. Based on the information compiled for this assessment, the Village of Put-In-Bay Public Water System's protection area is **susceptible to contamination** from roadway runoff, municipal sewage treatment plants, home sewage disposal system discharges, combined sewer overflows, and accidental releases and spills, especially from commercial shipping operations and recreational boating.

The intake's degree of sensitivity is affected by factors such as intake construction, lake bottom characteristics, localized flow patterns, thermal effects and benthic

nepheloid layers (a zone of suspended sediment). The benthic nepheloid layer's characteristics around an intake depend on sediment density, water temperature, bottom currents and animal activity. The surface and bottom currents around the intake are influenced by wind direction. Under certain conditions the direction of the bottom currents are in different directions from the surface currents. Currents need to be considered when determining whether spills may pose a threat to the intake.

It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses and other activities that are **potential sources of contamination** may change with time. While the source water for the Village of Put-In-Bay Public Water System is considered susceptible to contamination, historically, the Village of Put-In-Bay Public Water System has effectively treated this source water to meet drinking water quality standards.

Please contact **Jaime Mendoza at 419-285-8545** if you would like more information about the assessment or to receive a copy.

### What are sources of contamination to drinking 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: (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 storm water 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 storm water 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 storm water 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, USEPA prescribes **regulations** which **limit the amount** of certain **contaminants** in water provided by public water systems. 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's **Safe Drinking Water Hotline (1-800-426-4791)**.

#### Who needs to take special precautions?

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 infection. 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 microbial contaminants are available from the **Safe Drinking Water Hotline (1-800-426-4791)**.

#### Turbidity

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported below, the Put-In-Bay Water System's highest recorded turbidity result for 2019 was 0.39 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.9%.

#### Lead Educational Information

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. Put-In-Bay 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 at 800-426-4791** or at <http://www.epa.gov/safewater/lead>.

#### Definitions of some Terms Contained within this Report

- **Maximum Contaminant Level Goal (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.
- **Maximum Contaminant level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Residual Disinfectant Level (MRDL):** The highest residual disinfectant level allowed.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of residual disinfectant below which there is no known or expected risk to health.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water
- **Contact Time (CT)** means the mathematical product of a "residual disinfectant concentration" (C), which is determined before or at the first customer, and the corresponding "disinfectant contact time" (T).
- **Cyanotoxin:** Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as "algal toxin".
- **Parts per Million (ppm) or Milligrams per Liter (mg/L)** are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- **Parts per Billion (ppb) or Micrograms per Liter (µg/L)** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- The "**<**" **symbol:** A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.



### About your Drinking Water

The EPA requires regular sampling to ensure drinking water safety. The Village of Put-in-Bay water system conducted sampling for bacteria, inorganics, synthetic organics, and disinfection byproducts during 2019. Samples were collected for several different contaminants, most of which were not detected in the Put-In-Bay water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old. Chlorine in drinking water is a residual from the disinfection process, this is denoted with an “\*” symbol.

Substances Detected during Sampling	Sample Year	What's Allowed? (MCL)	What's the goal? (MCLG)	Level Found	Range of Detections	Violation	Typical Source of Contaminants
<b>Microbiological Contaminants</b>							
TURBIDITY (NTU)	2019	TT	N/A	0.39	.03-.39	No	Soil runoff, Sediment suspension
TURBIDITY (% meeting standard)	2019	TT	N/A	99.9%	99.9%-100%	No	Soil runoff, Sediment Suspension
<b>Inorganic Contaminants</b>							
BARIUM (ppm)	2019	2	2	0.02	NA	No	Discharge or drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE (ppm)	2019	4	4	0.131	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE (ppm)	2019	10	10	1.84	<0.1-1.84	No	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
<b>Residual Disinfectants and Disinfection Byproducts</b>							
TOTAL CHLORINE* (ppm)	2019	MRDL=4	MRDLG=4	1.29	.85-1.5	No	Drinking Water Additive for disinfection
HAA5 [HALOACETIC ACIDS] (ppb)	2019	60	N/A	27	10.7-61.3	No	By-Product of drinking water chlorination
TTHM [Total Trihalomethane] (ppb)	2019	80	N/A	49	22.6-87.5	No	By-Product of drinking water chlorination
<b>Lead and Copper</b>							
Contaminants (units)	Sample Period	Action Level	Individual results over action level	90% of test levels were less than	Violation	Typical Source of Contaminants	
COPPER (ppm)	June 2019	1.3	0	0.64	0	Corrosion of household plumbing systems; Erosion of natural deposits	
	0 out of 20 samples were found to have copper in excess of the copper Al of 1.3 ppm in June 2019.						
	Nov/Dec 2019	1.3	0	0.66	0	Corrosion of household plumbing systems; Erosion of natural deposits	
	0 out of 20 samples were found to have copper in excess of the copper Al of 1.3 ppm in November and December 2019.						
LEAD (ppb)	June 2019	15	0	2.6	0	Corrosion of household plumbing systems; Erosion of natural deposits	
	0 out of 20 samples were found to have lead in excess of the copper Al of 15 ppb in June 2019						
	Nov/Dec 2019	15	0	4.6	0	Corrosion of household plumbing systems; Erosion of natural deposits	
	0 out of 20 samples were found to have lead in excess of the copper Al of 15 ppb in November 2019.						