Put-In-Bay Village Public Water System

2024 Drinking Water Consumer Confidence Report

Prepared for 2023 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 ***2023*** we had an unconditioned license to operate our water system. 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 2023 consumer confidence report contact **Harry Williamson 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 is 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 **Harry Williamson 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).**

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".
- **Microcystins:** Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.
- **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 2023. 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, is 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
Microbiological Contaminants							
TURBIDITY (NTU)	2023	TT	N/A	0.27	0.10-0.27	No	Soil runoff, Sediment suspension
TURBIDITY (% meeting standard)	2023	TT	N/A	100%	100%	No	Soil runoff, Sediment Suspension
Inorganic Contaminants							
NITRATE (ppm)	2023	10	10	1.34	0.52-1.34	No	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE (ppm)	2023	N/A	N/A	1.34	0.52-1.34	N/A	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Residual Disinfectants and Disinfection Byproducts							
TOTAL CHLORINE* (ppm)	2023	MRDL=4	MRDLG=4	1.34	1.05-1.71	No	Drinking Water Additive for disinfection
HAA5 [HALOACETIC ACIDS] (ppb)	2023	60	N/A	19.63	11.30-25.50	No	By-Product of drinking water chlorination
TTHM [Total Trihalomethane] (ppb)	2023	80	N/A	46.00	23.70-65.10	No	By-Product of drinking water chlorination
Lead and Copper							
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)	2023	1.3	0		0.725	0	Corrosion of household plumbing systems; Erosion of natural deposits
	0 out of 10 samples were found to have copper in excess of the copper Al of 1.3 ppm.						
LEAD (ppb)	2023	15	0		10.4	0	Corrosion of household plumbing systems; Erosion of natural deposits
	0 out of 10 samples were found to have lead in excess of the lead Al of 15 ppb.						

Backflow Prevention and Cross-Connections

What is a cross-connection?

Any physical connection created between a possible source of contamination and any drinking water system piping is considered a cross connection.

What is backflow?

It is the flow through a cross-connection from a possible source of contamination back into the drinking water system. It occurs when a cross-connection is created and a pressure reversal, either as back-siphonage or backpressure, occurs in the water supply piping.

Why be concerned?

ALL cross-connections pose a potential health risk. Backflow can be a health hazard for your family or other consumers if contaminated water enters your water supply plumbing system and is used for drinking, cooking, or bathing. Chemical burns, fires, explosions, poisonings, illness, and death have all been caused by backflow through cross-connections. Backflow occurs more often than you think. You are legally responsible for protecting your water supply plumbing from backflow that may contaminate drinking water, either your own or someone else's. This includes complying with the plumbing code and not creating cross-connections.

What causes back-siphonage?

Back-siphonage occurs when there is a loss of pressure in a piping system. This can occur if the water supply pressure is lost or falls to a level lower than the source of contamination. This condition, which is similar to drinking from a glass with a straw, allows liquids to be siphoned back into the distribution system.

What causes backpressure?

Backpressure occurs when a higher opposing pressure is applied against the public water system's pressure. This condition allows undesirable gases or liquids from another system to enter the drinking water supply. Any pumping system (such as a well pump) or pressurized system (such as steam or hot water boilers) can exert backpressure when cross-connected with the public water system.

What can I do?

Be aware of and eliminate cross-connections. Maintain air gaps. Do not submerge hoses or place them where they could become submerged. Use hose bib vacuum breakers on fixtures (hose connections in the basement, laundry room, and outside. Install approved, testable backflow preventers on lawn irrigation systems. Do not create a connection between an auxiliary water system (well, cistern, body of water) and the water supply plumbing.

What must be done to protect the public water system?

The Village of Put-In-Bay must determine potential and actual hazards. If a hazard exists at a customer's public water supply service connection, the customer will be required to install and maintain an appropriate backflow preventer at the meter and/or at the source of the hazard. Check with the water department to verify which backflow preventer is required before purchase or installation.

Who is responsible?

In Ohio, the responsibility for preventing backflow is divided. In general, state and local plumbing inspectors have authority over plumbing systems within buildings while Ohio EPA and water suppliers regulate protection of the distribution system at each service connection. Water customers have the ultimate responsibility for properly maintaining their plumbing systems. It is the homeowner's or other customer's responsibility to ensure that cross-connections are not created and that any required backflow preventers are tested yearly and are in operable condition.

What is the law?

Ohio Administrative Code Chapter 3745-95 requires the public water supplier to protect the public water system from cross-connections and prevent backflow situations. The public water supplier must conduct cross-connection control inspections of their water customers' property to evaluate hazards. Local ordinances or water department regulations may also exist and must be followed in addition to state regulations. Contacts

Need more information?

Questions concerning backflow prevention and cross-connection control may be directed to the Village of Put-In-Bay water department at **419-285-8545**. Questions may also be directed to your local Ohio EPA District Office at the following numbers: **Northwest District 419-352-8461**. Questions regarding internal plumbing in the home may be directed to your local plumbing authority or to the Ohio Department of Commerce, Plumbing Administrator, at **614-644-3153**.

VILLAGE OF PUT-IN-BAY, OHIO
ESTABLISHED 1877