ANNUAL WATER QUALITY REPORT

Reporting Year 2024

Presented By

Village of Put-in-Bay
Water Department

PWS ID#: OH6203311

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, and how to participate in decisions concerning your drinking water and water system contacts. In 2024 we had an unconditioned license to operate our water system.

License to Operate

Note that we have a current, unconditioned license to operate our water system.

Community Participation

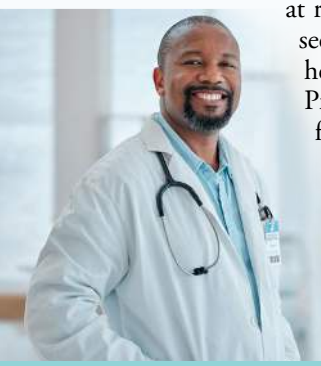
Public participation and comment regarding the water system are encouraged at regular meetings of the village council, which meets the first and second Tuesday of every month at 9:00 a.m. at Village Hall.

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.

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 can be particularly at risk from infections. These people should seek advice about drinking water from their health-care providers. 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 (800-426-4791) or epa.gov/safewater.



Source Water Assessment

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 protection area for the Village of Put-in-Bay's public water system 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 (zones of suspended sediment). A 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 different from that of the surface currents. Currents need to be considered when determining whether spills may pose a threat to the intake.

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 is considered susceptible to contamination, historically, the 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 a copy of the report.

Why save water?

Although 80% of the Earth's surface is water, only 1% is suitable for drinking. The rest is either salt water or is permanently frozen, and we can't drink it, wash with it, or use it to water plants.

Questions?

For more information about your drinking water or an additional copy of this 2024 Consumer Confidence Report (CCR), contact Harry Williamson at (419) 285-8545.

About Our Monitoring Violations

1. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. In May 2024, we did not complete all monitoring or testing for total coliform bacteria and therefore cannot be sure of the quality of your drinking water during that time. Only three of six required samples were analyzed.

What should I do?

- There is nothing you need to do at this time. You do not need to boil your water or take other corrective actions.
- This notice is to inform you that Put-in-Bay Village did not monitor or report results for the presence of total coliform bacteria in the public drinking water system during the May 2024 monitoring period, as required by the Ohio EPA.

What is being done?

Upon being notified of this violation, we were required to have the drinking water analyzed for total coliforms. All samples were taken, but three of them failed to make it to the outside lab we use for analysis. The three samples that were analyzed and subsequent monthly testing showed no positive detections. Steps were taken to improve communication with the outside lab so it is more likely that we will have timely notice of a failure or samples not making it in time to allow resampling.

For more information, please contact Harry Williamson at (419) 285-8545 or P.O. Box 481, Put-in-Bay, OH 43456.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

2. The following items were omitted or need correction in the 2023 CCR:

a. The following statement should have been included with the turbidity results: Turbidity is a measure of the cloudiness of the water and an indication of the effectiveness of the filtration system. The turbidity limit set by the U.S. EPA is 0.3 nephelometric turbidity units (NTU) in 95 percent of daily samples and shall not exceed 1.0 NTU at any time. As reported in the 2023 CCR, the highest turbidity result was 0.27 NTU, and 100 percent of samples were within the 0.3 NTU standard.

b. Barium was detected but not reported on the 2023 CCR. Here are the results that should have been included: highest detection 0.0193 part per million (ppm); range 0.0193 to 0.0193 ppm; typical sources: discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits.

c. The Village of Put-in-Bay incurred a monitoring violation for total microcystins for the week of August 6 - 19, 2023. We got a detection in our raw sample that required a follow-up sample analysis of a pair of raw and treated samples within 24 hours of the detection notice. We did not monitor or report these results as required by the Ohio EPA.

You do not need to take any action in response to this notice. The samples were collected but were not submitted in time. The results for the treated sample and subsequent treated samples were negative. We took steps to make sure samples are taken earlier in the week to allow time for any required follow-up testing.

Any questions should be directed to Harry Williamson at (419) 285-8545 or P.O. Box 481, Put-In-Bay, OH 43456.

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, you may wish to have your water tested. A list of laboratories certified in Ohio to test for lead may be found at epa.ohio.gov/ddagw or by calling (614) 644-2752. 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 epa.gov/safewater/lead.

Per the Lead and Copper Rules, public water systems were required to develop and maintain a service line inventory. A service line is the underground pipe that supplies your home or building with water. To view the service line inventory, which lists the material types for your location, you can visit the utilities office at 157 Concord Avenue.

The U.S. EPA requires regular sampling to ensure drinking water safety. The Village of Put-in-Bay conducted sampling for bacteria, inorganics, synthetic organics, and disinfection by-products in 2024. Samples were collected for several different contaminants, most of which were not detected in the Put-in-Bay water supply. Chlorine in drinking water is a residual from the disinfection process.

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 a year old.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2024	2	2	0.0193	0.0193–0.0193	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2024	[4]	[4]	1.47	1.00–1.86	No	Water additive used to control microbes
Fluoride (ppm)	2024	4	4	0.1	0.1–0.1	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2024	60	NA	19.6	9.4–22.2	No	By-product of drinking water disinfection
Nitrate (ppm)	2024	10	10	1.13	0.185–1.13	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2024	1	1	1.13	0.19–1.13	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [total trihalomethanes] (ppb)	2024	80	NA	55.8	29.4–58.7	No	By-product of drinking water disinfection
Turbidity[1] (NTU)	2024	TT	NA	0.19	NA	No	Soil runoff; Lake water sediment suspension
Turbidity (lowest monthly percent of samples meeting limit)	2024	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff; Lake water sediment suspension

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2024	1.3	1.3	0.686	0.067–0.729	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2024	15	0	11.6	ND–12.4	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits

[1] Turbidity 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. All samples should be <1 NTU, 95% of them <0.3 NTU.

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.

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.

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 backsiphonage 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 backsiphonage? Backsiphonage occurs when there is a loss of pressure in a piping system. This can occur if 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 or the source of the hazard, or both. Check with the water department to verify which backflow preventer is required before purchase or installation.

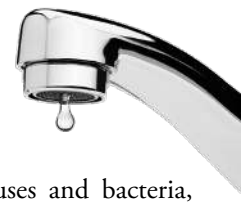
Who is responsible? In Ohio the responsibility for preventing backflow is divided. In general, state and local plumbing inspectors have authority over plumbing systems within buildings, while Ohio EPA and water suppliers regulate protection of the distribution system at each service connection. Water customers have the ultimate responsibility for properly maintaining their plumbing systems. It is the homeowner's or customer's responsibility to ensure that cross-connections are not created and any required backflow preventers are tested yearly and 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 its water customers' property to evaluate hazards. Local ordinances or water department regulations may also exist and must be followed in addition to state regulations.

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 (419) 352-8461. Questions regarding internal plumbing in the home may be directed to your local plumbing authority or the Ohio Department of Commerce, Plumbing Administrator, at (614) 644-3153.

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 occur naturally in the soil or groundwater or may 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 occur naturally or be the result of oil and gas production and mining activities.

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. Food and Drug Administration 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 mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline (800-426-4791) or visiting epa.gov/safewater.