



Village of Port Byron Annual Water Quality Report



PORT BYRON

IL1610550

Annual Water Quality Report for the period of January 1 to December 31, 2023

This report is intended to provide you with important information about your drinking water and the efforts made by the PORT BYRON water system to provide safe drinking water.

The source of drinking water used by PORT BYRON is Ground Water.

For more information regarding this report contact:

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To be informed of the policy decisions affecting the operation of the water utility, please monitor the Port Bryon Village Board Agenda. Agendas are posted at the Port Byron Village Hall at least 48 hours prior to each Village Board meeting. Meetings are conducted on the first and third Monday of each month at 6:00 p.m. at the Village Hall at 120 S Main St.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Source of Drinking Water
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA 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.

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 infections. 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 (800-426-4791).

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 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 <http://www.epa.gov/safewater/lead>.

Village of Port Byron Annual Water Quality Report January 1 to December 31, 2023

Please find our annual Water Quality Report confirming Port Byron's drinking water is safe and meets USEPA and Illinois drinking water quality standards except where noted below. Our system pumped & treated over 37,013,000 gallons (37.0 MG, Daily Average 101,405 GPD) of water while vigilantly safeguarding its groundwater supply. We performed numerous chemical & bacteriological tests throughout the year to ensure the highest quality water is provided to its citizens. NOTE: As you know, Port Byron received a Violation Notice for high Manganese at our Well 4 location. Tests showed we consistently ran slightly above the 150 ppb/L, part per billion, which is maximum limit established by the IEPA. We have been sending out quarterly Public Notices informing you of the health concerns with the Manganese levels. The Village and the Village's Engineers are working on finalizing design and funding for a new Manganese Removal Equipment.

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at 309-523-3705. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Source of Water: To determine Port Byron's susceptibility to groundwater contamination, information obtained during a Well Site Survey performed by the Illinois Rural Water Association on April 26, 1999 was reviewed. Based on this information, five potential sites of concern were identified within proximity of this water supply's wells. The Illinois EPA does not consider the city's source water susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells.

Port Byron 2023 Regulated Contaminants Detected IL1610550

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

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

Date Sampled: ~ 2023

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Violation	Likely Source of Contamination
0	15 ppb	1.9 ppb	0	1.3 ppm	1.3 ppm	0.24 ppm	0	No	Lead: Corrosion of household plumbing systems; Erosion of natural deposits Copper: Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

-Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health.

MCLG's allow for a margin of safety.

-Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

-Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety.

-Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.

mrem: - millirems per year (a measure of radiation absorbed by the body)

ppm: - parts per million or mg/l: milligrams per liter - or one ounce in 7,350 gallons of water.

ppb: - parts per billion or ug/l: micrograms per liter - or one ounce in 7,350,000 gallons of water. na: not applicable.

Avg: -Regulatory compliance with some MCLs is based on running annual average of monthly samples.

na: -not applicable

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

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Samples	Violations	Likely Source of Contaminant
0	0 positive monthly sample	0		0	No	Naturally present in the environment

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	2023	2.4	01 - 3	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	2023	3	2.98 – 2.98	No Goal for the total	60	ppb	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	2023	2	2.19 – 2.19	No Goal for the total	80	ppb	No	By-product of drinking water chlorination
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Arsenic	2021	2.3	2.3 - 2.3	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2023	0.67	0.67 – 0.67	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
						ppb	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride	2023	0.586	0.586 – 0.586	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Iron	2023	0.75	0.75 – 0.75		1.0	ppm	No	Erosion from naturally occurring deposits
Manganese	2023	243	32 - 350	150	150	ppb	Yes	Erosion from naturally occurring deposits
Nitrate (As Nitrogen)	2020	0.04	0.03 – 0.04	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	2017	6.3	0 – 6.3	50	50	ppb	No	Erosion of natural deposits
Sodium	2023	18	18 - 18			ppm	No	Erosion of naturally occurring deposits; used in water softener regeneration
						ppm	No	Discharge from petroleum and metal refineries; Erosion of natural deposits
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Combined Radium 226/228	2020	1.40	1.29 - 1.40	0	5	pCi/L	No	Erosion of natural deposits
Gross Radium excluding radon and uranium	2021	1.41	1.16 – 1.41	0	15	pCi/L	No	Erosion of natural deposits

Violations Table			
Port Byron Public Water Supply received Quarterly Sampling Violations for Manganese in 2023 at their Well 4 location.			
Contaminant or Program	Violation Type	Violation Duration Start Date – End Date	Violation Explanation
MANGANESE	MCL	Q1 1/1/23 – 3/31/23	Well 4 Sample exceeded 150 ppb Manganese Limit
Health Effects (if applicable)	Infants (babies under one year old) may develop learning and behavior problems if they drink water with high levels of manganese. Children and adults who drink water with high levels of manganese for a long time may have problems with memory, attention and motor skills.		
Actions we took:	Quarterly Sampling to monitor for Manganese at the 3 Wells and 2 Water Treatment Plants		
Contaminant or Program	Violation Type	Violation Duration Start Date – End Date	Violation Explanation
MANGANESE	MCL	Q2 4/1/23 – 6/30/23	Well 4 Sample exceeded 150 ppb Manganese Limit
Health Effects (if applicable)	Infants (babies under one year old) may develop learning and behavior problems if they drink water with high levels of manganese. Children and adults who drink water with high levels of manganese for a long time may have problems with memory, attention and motor skills.		
Actions we took:			
Contaminant or Program	Violation Type	Violation Duration Start Date – End Date	Violation Explanation
MANGANESE	MCL	Q3 7/1/23 – 9/30/23	Well 4 Sample exceeded 150 ppb Manganese Limit
Health Effects (if applicable)	Infants (babies under one year old) may develop learning and behavior problems if they drink water with high levels of manganese. Children and adults who drink water with high levels of manganese for a long time may have problems with memory, attention and motor skills.		
Actions we took:			
Contaminant or Program	Violation Type	Violation Duration Start Date – End Date	Violation Explanation
MANGANESE	MCL	Q4 10/1/23 – 12/31/23	Well 4 Sample exceeded 150 ppb Manganese Limit
Health Effects (if applicable)	Infants (babies under one year old) may develop learning and behavior problems if they drink water with high levels of manganese. Children and adults who drink water with high levels of manganese for a long time may have problems with memory, attention and motor skills.		
Actions we took:			
Please Note: The Village has subsequently submitted for approval from the EPA the construction of Manganese Filtration Equipment and a Wastewater Forcemain for treatment of the removed manganese. The Village will continue to keep you informed.			

Consumer Confidence Rule

The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual Consumer Confidence reports on the quality of the water delivered to the systems.

Violation Type	Violation Begins	Violation Ends	Violation Explanation
CCR ADEQUACY / AVAILABILITY / CONTENT	7/1/2023	2024	We failed to provide to you, our drinking water customers an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in your drinking water.