

Annual Drinking Water Quality Report for 2023 - Port Kent Water District
Town of Chesterfield
PO Box 456 Keeseville, NY 12944
(Public Water Supply ID# 1520370)

INTRODUCTION

To comply with State regulations, **Port Kent Water District** will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact **Dave Winter, Water Operator (518) 834-9042**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held at the Town Hall at 6:00pm on the second Tuesday of every month. We would also be pleased to discuss any drinking water issues in person.

WHERE DOES OUR WATER COME FROM?

In general, 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 activities. Contaminants that may be present in source water include microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the concentration of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Lake Champlain is the source of water for Port Kent. There are two 12" diameter intake pipes that extend 600' out from shore with screened intake structures located about 60' below the surface. Water flows into a 9000-gallon wet well located at the shoreline. Raw water is pumped by 2 vertical turbine pumps each rated at 200 gpm through the raw water transmission line to the filtration plant located on Trembleau Road. There are 2 trains of filters, each producing 200gpm. The mixed media pressure filters consist of a roughing filter and a polishing filter followed by granular activated carbon filters which will be used on a seasonal basis for disinfection by-product control. A coagulant is applied prior to the filters and the water is disinfected with ultraviolet disinfection units and with chlorine solution before it is pumped into the 170,000-gallon storage tank.

FACTS AND FIGURES

Our water system serves approximately 300 people through 156 service connections. During 2023, the daily average volume of water that was distributed to customers was 23,000 gallons. The total volume of water used during 2023 was 8,343,700 gallons. Approximately 5 percent of the total water used was lost due to flushing and leaks.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds, including PFAS and 1,4-dioxane. The table presented on the next page depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably 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 (800-426-4791) or the New York State Health Department (518) 891-1800.

Table of Detected Contaminants

(Definitions for abbreviations used in this table are included on the next page)

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Microbiological Contaminants							
Turbidity ¹	No	2/11/2023	0.37	NTU	n/a	TT=<1NTU	Soil Runoff
Turbidity ¹	No	Feb 2023	99% < 0.3	NTU	n/a	TT=95% of samples <0.3NTU	Soil Runoff
Inorganic Contaminants							
Color	No	2019	5	Units	n/a	15 (MCL)	Natural color may be caused by decaying leaves, plants, and soil organic matter; Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant byproducts such as trihalomethanes, the presence of metals such as copper, iron and manganese;
Sulfate	No	2019	11	mg/l	n/a	250 (MCL)	Naturally occurring
Sodium	No	2020	14	mg/l	n/a	See Note 6	Naturally occurring; Road salt; Water softeners; Animal waste.
Chloride	No	2019	29	mg/l	n/a	250 (MCL)	Naturally occurring or indicative of road salt contamination
Fluoride	No	2019	0.08	mg/l	2.2	n/a	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Lead	No	2022	0.0005 ² ND – 0.001 ³	mg/L	0	0.015 (AL)	Corrosion of household plumbing systems.
Copper	No	2022	0.12 ² 0.075 – 0.12 ³	mg/l	AL=1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Synthetic Organic Contaminants							
Perfluorooctanoic acid (PFOA)	no	2023	2.33	ng/l	n/a	10 (MCL)	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanesulfonic (PFOS)	no	2023	0.79	ng/l	n/a	10 (MCL)	Released into the environment from widespread use in commercial and industrial applications.
Disinfection Byproducts							
Total Trihalomethanes (TTHMs)	No	2023	43.7 ⁴ 35.1 – 55.6 ⁵	ug/l	n/a	80 (MCL)	By-products of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains measurable amounts of organic matter.
Total Haloacetic Acids (HAA5s)	No	2023	36.2 ⁴ 30.7 – 40.8 ⁵	ug/l	n/a	60 (MCL)	By-product of drinking water chlorination.
Radioactive Contaminants							
Gross Alpha	No	2021	0.0	pCi/L	0	5 (MCL)	Decay of natural deposits and man-made emissions.
Radium 226 and 228	No	2021	0.0	pCi/L	0	5 (MCL)	Decay of natural deposits and man-made emissions.

Notes:

- 1 Turbidity is a measure of the cloudiness of our water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Our single highest measurement for the year occurred on 02/11/2023 (0.37 NTU). The regulations require that 95% of the turbidity samples collected in a month have measurements below 0.3 NTU.
- 2 The level presented represents the 90th percentile of the 5 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead & copper values detected at your water system. In this case, 5 samples were collected at your water system and the 90th percentile value was the average of the highest and 2nd highest value.
- 3 The levels presented represent a range of the samples collected. The action level for lead and copper was not exceeded at any of the test sites.
- 4 This level represents the highest locational running annual average of samples collected last year.
- 5 These levels represent the range of samples collected last year.
- 6 Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

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.

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.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water

EPA Test Method 533 is used to measure PFOA and PFOS which are regulated perfluoroalkyl analytes with an MCL level of 10 nanograms per liter (ng/L) or 10 parts of liquid per 1 trillion parts of liquid. As part of EPA Test Method 533 a total of 25 analytes are also measured as part of that test. Unregulated perfluoroalkyl analytes that were analyzed in our water samples and had detectable levels are shown in the Unregulated Perfluoroalkyl Substances table provided below.

Unregulated Perfluoroalkyl Substances					
MCL level for each Unregulated PFAS Substance = 50,000 ng/L					
Contaminant	Violation (Yes/No)	Date of Sample	Level Detected	Unit Measurement	MCGL or Health Advisory Level^{1,2}
Perfluoroheptanoic Acid (PFHPA)	No	2023	1.62	ng/L	NA
Perfluorohexanoic Acid (PFHXA)	No	2023	1.22	ng/L	NA
Perfluorobutanoic Acid (PFBA)	No	2023	4.17	ng/L	NA
Perfluoropentanoic Acid (PFPEA)	No	2023	1.44	ng/L	NA
Perfluorohexane Sulfonic Acid (PFHXS)	No	2023	0.682	ng/L	NA

1 USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.

2 All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 50,000 ng/L.

WHAT DOES THIS INFORMATION MEAN?

We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. Lead levels in our water system are low; however, we are required to provide the following information: 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. The Port Kent Water District is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Dave Winter, Water Operator (518) 834-9042. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are in full compliance with all applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ◆ Saving water saves energy and some of the costs associated with both necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

Source Water Assessment Summary

The NYS Dept. of Health completed a source water assessment for this system based on available information.

The Lake Champlain watershed is exceptionally large and too big for a detailed evaluation in the SWAP. General drinking water concerns for public water supplies which use this source include storm generated turbidity, eutrophication (excessive nutrients and algae) wastewater, toxic sediments, toxic algae and problems associated with exotic species (e.g. zebra mussels-intake clogging). The summary below is based on the analysis of the contaminant inventory compiled for the drainage area deemed most likely to impact drinking water quality at this PWS intake. This assessment found a slight to moderate susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area does not increase the potential for contamination. While there are some facilities present, permitted discharges to groundwater do not likely represent an important threat to source water quality. There are no likely contamination threats associated with other discrete contaminant sources, even though some facilities were found in low densities. Additional sources of potential contamination include septic systems.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. To maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.