Drinking Water Quality and Compliance Northern Settlement of Brabant Lake- 2022 Annual Notice to Consumers

Introduction

The Water Security Agency and the Ministry of Environment requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to Operate a Waterworks. The following is a summary of the Northern Settlement of Brabant Lake water quality and sample submission compliance record for the January 1st, 2022 to December 31st, 2022 time period. This report was completed on June 22, 2023. Readers should refer to Water Security Agency's <u>Municipal Drinking Water Quality</u> <u>Monitoring Guidelines</u>, June 2015, EPB 502 for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for a specific waterworks may require more sampling than outlined in the department's monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of Selenium in a water supply", more detailed information is available from: <u>http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html</u>.

Water Quality Standards

Bacteriological Quality

		Regular Samples Regular Samples		# of Positive Regular	
Parameter/Location	Limit	Required	Submitted	Submitted (%)	
Total Coliform	0 Organisms/100 mL	45	35	0%	
E. coli	0 Organisms/100 mL	45	35	0%	
Background Bacteria	Less than 200/100 mL				

Due one every week until October 30, 2022, then once a month with new permit.

Water Disinfection –

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples							
	Minimum	Total Chlorine	Free Chlorine	# Tests	# Tests	# Adequate	
Parameter	Limit	Residual Range	Residual Range	Required	Submitted	Chlorine (%)	
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.22 to 2.20	0.05 to 2.16	45	36	94.44%	

<u>Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-From</u> <u>Water Treatment Plant Records</u>

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.36 (to November 20 at least 0.2 (after November 3	,	20 213	16

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are normally performed on a daily basis by the waterworks operator and are to be recorded in operation records. This data includes the number of free chlorine residual tests performed, the overall range of free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Turbidity – From Water Treatment Plant Records

Parameter	Limit (NTU)	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Tests Required	# Tests Performed	
Turbidity	< 1.0	0.48 to 2.32	12	2.32	45	36	

<u> Chemical – Health Category</u>

All waterworks serving less than 5000 persons are required to submit water samples for WSA's Chemical Health category **once every 2 years**. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

The last sample for Chemical Health analysis was submitted on March 16, 2022. Sample results indicated that the provincial drinking water quality standards were not exceeded. The next scheduled test will be taken in 2024 as per permit requirements.

General Chemical

All waterworks serving less than 5000 persons are required to submit water samples for WSA's General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

A General Chemical analysis was submitted on March 16, 2022 and met all drinking water quality standards. The next scheduled test will be taken in 2024 as per permit requirements.

*Objectives apply to certain characteristics of or substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with drinking water aesthetic objectives is not mandatory as these objectives are in the range where they do not constitute a health hazards. The aesthetic objectives for several parameters (including hardness as CaCO₃, magnesium, sodium and total dissolved solids) consider regional differences in drinking water sources and quality.

More information on water quality and sample submission performance may be obtained from:

Northern Municipal Trust Account Northern Settlement of Bear Creek c/o NMS Advisor Box 113, La Ronge, SK SOJ 1L0 Tel: 1-800-663-1555 Fax: 1-306-425-2401 E-mail address: nms@gov.sk.ca

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