

Drinking Water Quality and Compliance for *Town of Nokomis* 2023 Annual Notice to Consumers

Introduction

The Water Security Agency (WSA) 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 Permit to Operate a Waterworks. The following is a summary of the Town of Nokomis water quality and sample submission compliance record for the January 1, 2023 to December 31, 2023 time period. This report was completed on April 8. 2024.Readers should refer to the Agency's <u>Municipal Drinking Water Quality Monitoring Guidelines</u>, November 2015, EPB 202 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 Agency'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: http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/ index e.html .

Water Quality Standards

Bacteriological Quality

Parameter/Location Limit		Limit	Regular Samples Required	Regular San Submitted	•	of Positive Regular ubmitted (%)	
		0 Organisms/100 mL	26	26		100	
		Less than 200/100 mL					
Water Disinfection –							
Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples							
Chiorine Re							
	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests	# Tests	# Adequate	
Parameter Chlorine	Minimum	Total Chlorine Residual Range	Free Chlorine	# Tests	# Tests	# Adequate	
Parameter	Minimum Limit	Total Chlorine Residual Range OR	Free Chlorine	# Tests	# Tests	# Adequate	

Water Treatment Plant Records Test Level # Tests # Tests Not Meeting Parameter Limit (mg/L) Range Performed Requirements

ParameterLimit (mg/L)RangePerformedRequirementsFree Chlorine Residualat least 0.1.46-.1.083650

A minimum of 0.1 milligrams per liter (mg/L) free chlorine residual is required for water entering the distribution system (unless otherwise stated in waterworks operating permit). 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.

<u>Turbidity – From Water Treatment Plant Records</u>								
Parameter	Limit	Test Level	# Tests Not Meeting	Maximum	# Tests	# Tests	#	
Tests								
	(NTU)	Range	Requirements	Turbidity (NTU)	Required	Performed		

Chemical – Health Category

All waterworks serving less than 5000 persons are required to submit water samples for WSA's Chemical Health category once every 2 years *(unless otherwise stated in waterworks operating permit)*. 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 August 25, 2022. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Result(s)	# Samples Exceeding Limit	
Arsenic	0.010		0.0006	0	* Results expressed
Barium	1.0		.111	0	as average values
Boron		5.0	<0.1	0	for communities or
Cadmium	0.005		<0.00015	0	waterworks that
Chromium	0.05		<0.00019	0	fluoridate drinking
Fluoride (avg*)	1.5		0.13	0	water supplies or
Lead	0.01		0.00020	0	those with elevated
Nitrate (avg.*)	45.0		2.4	0	concentrations of
Seleniuum	0.01		<0.00113	0	fluoride or nitrates.
Uranium	0.02		0.0016	0	

General Chemical

Parameter	Aesthetic	Sample Results #		# Samples # Samples	
	Objectives * (mg/L)	(average)	Required	Submitted	
Alkalinity	500	233	1 every 2 yrs	1	
Bicarbonate	No Objective	284	same	1	
Calcium	No Objective	83	same	1	
Carbonate	No Objective	0	same	1	
Chloride	250	12.1	same	1	
Conductivity	No Objective	620	same	1	
Hardness	800	327	same	1	
Magnesium	200	0.01	same	1	
pH	No Objective	7.8	same	1	
Sodium	300	13	same	1	
Sulphate	500	88.7	same	1	
Total dissolved					
Solids	1500	515	same	1	

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.

The last sample for General Chemical analysis was required in 2022 and submitted on *August 25, 2022* Sample results indicated that there were no exceedances of the provincial aesthetic objectives for the General Chemical.

*Objectives apply to certain characteristics of 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 hazard. 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:

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