

**Drinking Water Quality and Compliance
Town Short Form – A Template for Annual Notice to Consumers**

Introduction

The Water Security Agency and the Ministry of Environment require 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 Town of Oxbow water quality and sample submission compliance record for the year 2024 time period. This report was completed on Jan.25-2025. Readers should refer to Water Security Agency's Municipal Drinking Water Quality Monitoring Guidelines, June 2015, EPB 502 for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for 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: http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html.

Water Quality Standards
Bacteriological Quality

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Sample Results
Total Coliform	Zero organisms/100 mL	52	56	2
E. Coli	Zero organisms/100 mL	52	56	0

(These 2 samples were false positives due to sampling errors and were retested and were good)

Water Disinfection –
Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# of Tests Required	# of Tests Submitted	# Of Tests Not Meeting Requirements
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	.62 to 3.76	.10 to 3.08	52	56	0

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

Parameter	Limit (mg/L)	Test Level Range	# of Tests Performed	# Of Tests Not Meeting Requirements
Free Chlorine	Minimum 0.25 mg/L	.39 to 3.36	366	0

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 daily by the waterworks operator and are to be recorded in operational 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. The Town of Oxbow permit to operate states that the minimum free chlorine level is to be a minimum of .25mg/L entering the distribution for extra insurance that at the furthest point in distribution there will still be sufficient disinfection.

Turbidity – From Water Treatment Plant Records

Parameter	Limit NTU	Test Level Range	# of Tests Not Meeting Requirements	# of Tests Required	# of Tests Performed
Turbidity	1.00	0.05 to 1.42	1	366	366

Chemical – Health Category

All waterworks serving more than 5000 persons are required to submit water samples for SE’s Chemical Health category once every year. 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 26-2024. Sample results indicated that the provincial drinking water quality standards were not exceeded

Parameter	Limit MAC	Units	Limit IMAC	Units	Sample Result (s)	Units	# of Samples Exceeding Limit	*Results expressed as average values for communities or waterworks that fluoridate drinking water supplies or those with elevated concentrations of fluoride or nitrates.
Arsenic	10.0	µg/L			.60	ug/L	0	
Barium	1.0	mg/L			42.0	ug/L	0	
Boron			5.0	mg/L	.0003	mg/L	0	
Bromate	10.0	µg/L			NOT TESTED	ug/L	0	
Cadmium	5.0	µg/L			<.15	ug/L	0	
Chlorate	1.0	mg/L			NOT TESTED	mg/L	0	
Chlorite	1.0	mg/L			NOT TESTED	mg/L	0	
Chromium	50.0	µg/L			<.19	ug/L	0	
Flouride (avg. *)	1.5	mg/L			.21	mg/L	0	
Lead	10.0	µg/L			<.07	ug/L	0	
Nitrate (avg. *)	45.0	mg/L			.20	mg/L	0	
Selenium	10.0	µg/L			1.13	ug/L	0	
Uranium	20.0	µg/L			2.8	ug/L	0	

Chemical – Trihalomethanes (THMs)and Haloacetic Acids (HAAs)

Parameter	Limit (mg/L)	Sample Result (average)	Units (mg/L or µg/L)	# of Samples Required	# of Samples Submitted
Trihalomethanes	0.1	.1485	mg/L	4 (1 every 3 months)	4
Haloacetic Acid	0.08	.0625	mg/L	4 (1 every 3 months)	4

Note: Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for THMs and HAAs. Waterworks using groundwater sources beyond the influence of surface water do not need to report THMs or HAAs since sampling/analysis will not likely have been performed unless otherwise noted in the waterworks permit to operate. The Town of Oxbow THM levels continue to exceed the limit, and we are working with the Water Security Agency on a solution to bring those levels down in the future to meet or exceed the minimum requirements.

General Chemical

Parameter	Aesthetic Objective (mg/L)	Sample Results (average)	Units (mg/L or µg/L)	# of Samples Required	# of Samples Submitted
Alkalinity	500	421		1	1
Bicarbonate	No Objective	514		1	1
Calcium	No Objective	125		1	1
Carbonate	No Objective	0		1	1
Chloride	250	83		1	1
Conductivity	<2300	1814		1	1
Hardness	800	543		1	1
Magnesium	200	56		1	1
pH	7.0-10.5	7.4		1	1
Sodium	300	244		1	1
Sulphate	500	475.7		1	1
Total Dissolved Solids	1500	1514		1	1

All waterworks serving more than 5000 persons are required to submit water samples for SE's General Chemical category once every year if a ground water 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 2024 and submitted on March 26-2024. Sample exceeded provincial aesthetic objectives for the General Chemical category for the following parameters: **Total Dissolved Solids**

*Objectives apply to certain characteristics of or substances found in water for human consumption 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 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:

Town of Oxbow
 319 Main Street Box 149
 Oxbow Sk. S0C 2B0
 1-306-483-2300
 utilities@oxbow.ca

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