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

(Note: This short form may be used for communities or waterworks serving a population of less than 5000).

### 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 Town of Oxbow water quality and sample submission compliance record for the year 2022 period. This report was completed on June 22-2023. 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 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: 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 Submitted
Total Coliform	Zero organisms/100 mL	52	53	1
E. Coli	Zero organisms/100 mL	52	53	1
Background Bacteria	<200 organisms/100mL	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

#### 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	% Adequate Chlorine
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.51-2.82	0.12-1.91	52	53	100%

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

Parameter	Limit (mg/L)	Test Level Range	# of Tests Performed	# Of Tests Not Meeting Requirements
Free Chlorine	Minimum 0.1 mg/L	0.11-4.71	365	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 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	# of Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# of Tests Required	# of Tests Performed
Turbidity	1.00	0.06-4.16	17	1.00	365	365

### **Chemical – Health Category**

All waterworks serving less than 5000 persons are required to submit water samples for SE'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 28-2022 Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	Limit MAC	Units	Limit IMAC	Units	Sample Result (s)	Units		*Results expressed as
Arsenic	10.0	μg/L			0.50	ug/L		average
Barium	1.0	mg/L			41.1	ug/L	0	values for
Boron			5.0	mg/L	0.3	mg/L	0	communities
Bromate	10.0	μg/L			Not tested			or waterworks
Cadmium	5.0	μg/L			<0.15	ug/L	0	that fluoridate
Chlorate	1.0	mg/L			Not tested			drinking water supplies or
Chlorite	1.0	mg/L			Not tested			those with
Chromium	50.0	μg/L			<0.19	ug/L	0	elevated
Fluoride (avg. *)	1.5	mg/L			0.21	mg/L	0	concentrations
Lead	10.0	μg/L			0.10	mg/L	0	of fluoride or
Nitrate (avg. *)	45.0	mg/L			<0.02	mg/L	0	nitrates.
Selenium	10.0	μg/L			<1.13	ug/L	0	- · · · · · · · · · · ·
Uranium	20.0	μg/L			5.6	ug/L	0	

## <u>Chemical – Trihalomethanes (THMs)and Halo acetic Acids (HAAs)</u>

Parameter	Limit (mg/L)	Sample Result (average)	Units (mg/L or μg/L)	# of Samples Required	# of Samples Submitted
Trihalomethanes	0.1	172	ug/L	4 (1 every 3 months)	3
Halo acetic Acid	0.08	62.5	ug/L	4 (1 every 3 months)	2

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





#### **General Chemical**

Parameter	Aesthetic Objective (mg/L)	Sample Results (average)	Units (mg/L or µg/L)	# of Samples Required	# of Samples Submitted
Alkalinity	500	411	mg/L	1	1
Bicarbonate	No Objective	501	mg/L	1	1
Calcium	No Objective	128	mg/L	1	1
Carbonate	No Objective	0	mg/L	1	1
Chloride	250	67.9	mg/L	1	1
Conductivity	No Objective	1566	uS/cm	1	1
Hardness	800	550	mg/L	1	1
Magnesium	200	56	mg/L	1	1
pН	No Objective	7.6	pH units	1	1
Sodium	300	166	mg/L	1	1
Sulphate	500	376.6	mg/L	1	1
Total Dissolved Solids	1500	1310	mg/L	1	1

All waterworks serving less than 5000 persons are required to submit water samples for SE'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 CaCO<sub>3</sub>), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was required in March 2022 and submitted on *March 28-2022*. Sample results indicated that there were no exceedences of the provincial aesthetic objectives for the General Chemical category.

\*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 health hazards. The aesthetic objectives for several parameters (including hardness as CaCO<sub>3</sub>, 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 SOC 2B0 1-306-483-2300 utilities@oxbow.ca

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