

## Drinking Water Quality and Compliance

### Cities Short Form – A Template for 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 (*community name*) water quality and sample submission compliance records for the (*inset applicable time period here*) time period. This report was completed on (*insert date here*) (*must be completed before June 30 each year on a calendar year based reporting frequency*). Readers should refer to Saskatchewan 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](http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html)

#### Water Quality Standards

##### Bacteriological Quality

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

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

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	_____	_____	_____

##### Water Disinfection – Free Chlorine Residual for Water Entering Distribution System – From Water Treatment Plant Records

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.1	_____	_____	_____

##### Turbidity

Parameter	Limit (NTU)	Test Level Range	# Tests Not Meeting Requirements	Turbidity (NTU)	# Tests Required	# Tests Performed
Turbidity	_____	_____	_____	_____	_____	_____

##### Chemical – Health Category

All waterworks serving 5000 persons or more are required to submit water samples for Saskatchewan Environment's "Chemical Health" based on population size. The "Chemical Health" category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

Samples for "Chemical Health" analysis were submitted on (*insert date*). Sample results indicated that the provincial drinking water quality standards were not exceeded. (*Use this one if review indicates that there*



were no exceedances). (OR) Samples exceeded provincial water quality standards only for the following parameters: (Use only the applicable portions of table below for which values have been exceeded).

Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Results	# Samples Exceeding Limit	# Samples Required	# Samples Submitted
Arsenic	0.010		_____	_____	_____	_____
Barium	1.0		_____	_____	_____	_____
Boron		5.0	_____	_____	_____	_____
Bromate	0.01		_____	_____	_____	_____
Cadmium	0.005		_____	_____	_____	_____
Chlorate	1.0		_____	_____	_____	_____
Chlorate	1.0		_____	_____	_____	_____
Chromium	0.05		_____	_____	_____	_____
Fluoride (avg.)*	1.5		_____	_____	_____	_____
Lead	0.01		_____	_____	_____	_____
Nitrate (avg.)*	45.0		_____	_____	_____	_____
Selenium	0.01		_____	_____	_____	_____
Uranium	0.02		_____	_____	_____	_____

\* Results expressed as average values for communities or waterworks which fluoridate drinking water supplies or those with elevated concentrations of fluoride or nitrates.

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

Parameter	Limit (mg/L)	Sample Result (average)	# Samples Required	# Samples Submitted
Trihalomethanes	0.1	_____	4 (1 every 3 months)	_____
Haloacetic Acids	0.080	_____	4 (1 every 3 months)	_____

(Note: Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for Trihalomethanes and Haloacetic Acids. Waterworks using groundwater sources beyond the influence of surface water do not need to report trihalomethanes and haloacetic acids, since sampling and analysis will not likely have been performed), unless otherwise specified in the waterworks permit to operate.

#### General Chemical

Parameter	Aesthetic Objectives * (mg/L)	Sample Results (average)	# Samples Required	# Samples Submitted
Alkalinity	500	_____	_____	_____
Bicarbonate	No Objective	_____	_____	_____
Calcium	No Objective	_____	_____	_____
Carbonate	No Objective	_____	_____	_____
Chloride	250	_____	_____	_____
Conductivity	No Objective	_____	_____	_____
Hardness	800	_____	_____	_____
Magnesium	200	_____	_____	_____
PH	No Objective	_____	_____	_____
Sodium	300	_____	_____	_____
Sulphate	500	_____	_____	_____
Total dissolved Solids	1500	_____	_____	_____

All waterworks serving more than 5000 persons are required to submit water samples for the General Chemical category as per their operating permit. 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 on (insert year required) and submitted on (insert date) (use this statement if a groundwater supply). The last sets of quarterly samples for General Chemical analysis were required on (insert year or sample submission period required) and were submitted on (insert dates) (use this statement if a surface source or blended source). Sample results indicated that there were no exceedences of the provincial aesthetic objectives for the General Chemical category (use this statement if there were no exceedences). **(OR)** Samples exceeded provincial aesthetic objectives for the General Chemical category for the following parameters: (use only the applicable portions of the table below for which values have been exceeded).

\*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 CaCO<sub>3</sub>, magnesium, sodium and total dissolved solids) consider regional differences in drinking water sources and quality.

### **Chemical – Pesticides**

All waterworks serving 5000 persons or more are required to submit water samples for Saskatchewan Environment's "Pesticides" category. The frequency of sample submission depends on the number of persons supplied by the waterworks. The "Pesticides" category includes analysis for atrazine, bromoxynil, carbofuran, chlorpyrifos, dicamba, 2,4-D, diclofop-methyl, dimethoate, malathion, pentachlorophenol, picloram and trifluralin.

Samples for pesticide analysis were submitted on (insert date). Sample results indicated that the provincial drinking water quality standards were not exceeded. (Use this one if review indicates that there were no exceedences). **(OR)** Samples exceeded provincial water quality standards only for the following parameters: (Use only the applicable portions of table below for which values have been exceeded).

<b>Parameter</b>	<b>Limit MAC (mg/L)</b>	<b>Limit IMAC (mg/L)</b>	<b>Sample Result</b>	<b># Samples Exceeding MAC/IMAC</b>	<b>#Samples Required</b>	<b># Samples Submitted</b>
Atrazine		0.005	_____	_____	_____	_____
Bromoxynil		0.005	_____	_____	_____	_____
Carbofuran	0.09		_____	_____	_____	_____
Chlorpyrifos	0.09		_____	_____	_____	_____
Dicamba	0.12		_____	_____	_____	_____
2,4-D*		0.1	_____	_____	_____	_____
Diclofop-methyl	0.009		_____	_____	_____	_____
Dimethoate		0.2	_____	_____	_____	_____
Malathion	0.19		_____	_____	_____	_____
MCPA	0.10		_____	_____	_____	_____
Pentachlorophenol	0.06		_____	_____	_____	_____
Picloram		0.19	_____	_____	_____	_____
Trifluralin		0.045	_____	_____	_____	_____

### **Chemical – Cyanide and Mercury**

<b>Parameter</b>	<b>Limit MAC (mg/L)</b>	<b>Sample Results</b>	<b># Samples Exceeding MAC</b>	<b># Samples Required</b>	<b># Samples Submitted</b>
Cyanide	0.2	_____	_____	_____	_____
Mercury	0.001	_____	_____	_____	_____



**Algal Toxins –Microcystin-LR**

Date of last sample: \_\_\_\_\_

Parameter	Limit MAC (mg/L)	Sample Results	# Samples Exceeding MAC	# Samples Required	# Samples Submitted
Microcystin LR	0.0015	_____	_____	_____	_____

Microcystin LR is an algal toxin typically released following die-off on an algal bloom in a raw surface water supply. Samples should typically be collected and analyzed on a monthly basis during periods when algae blooms on reservoirs or other surface water sources occur.

**Chemical – Synthetic Organic Chemicals**

All waterworks serving 5000 persons or more are required to submit water samples for Saskatchewan Environment's "Synthetic Organic Chemicals" category. The frequency of sample submission depends on the number of persons supplied by the waterworks. The "Synthetic Organic Chemicals" category includes analysis for Benzene, Benzo(a)pyrene, Carbon tetrachloride, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Dichloromethane, 2,4-Dichlorophenol, Monochlorobenzene, 2,3,4,6-Tetrachlorophenol, Trichloroethylene, 2,4,6-Trichlorophenol and Vinyl Chloride.

Samples for synthetic organic chemicals were submitted on (*insert dates*). Sample results indicated that the provincial drinking water quality standards were not exceeded. (*Use this one if review indicates that there were no exceedences*). **(OR)** Samples exceeded provincial water quality standards only for the following parameters: (*Use only the applicable portion of table below for which values have been exceeded*).

Parameter/Location	Limit MAC	Limit IMAC	Sample Result(s)	# Samples Exceeding Limit	# Samples Required	# Samples Submitted
Benzene	0.005	_____	_____	_____	_____	_____
Benzo(a)pyrene	0.00001	_____	_____	_____	_____	_____
Carbon Tetrachloride	0.005	_____	_____	_____	_____	_____
Cichlorobenzene, 1,2	0.02	_____	_____	_____	_____	_____
Dichlorobenzene, 1,4	0.005	_____	_____	_____	_____	_____
Dichloroethylene, 1,1	0.014	_____	_____	_____	_____	_____
Dichloromethane	0.05	_____	_____	_____	_____	_____
Dichlorophenol, 2,4	0.9	_____	_____	_____	_____	_____
Monochlorobenzene	0.08	_____	_____	_____	_____	_____
Tetrachlorophenol, 2,3,4,6	0.1	_____	_____	_____	_____	_____
Trichloroethylene	0.05	_____	_____	_____	_____	_____
Trichlorophenol, 2,4,6	0.005	_____	_____	_____	_____	_____
Vinyl Chloride	0.002	_____	_____	_____	_____	_____

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

- City/Owner/Manager Name and Title
- Postal Address
- Telephone Number
- Facsimile Number (if available)
- E-mail address (if available)

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

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