

## Drinking Water Quality and Compliance Annual Notice to Consumers

The Saskatchewan 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 **Village of Tuxford’s** water quality and sample submission compliance record for the 2023 calendar year. This report was completed on Feb 09/24. Readers should refer to Saskatchewan Environment’s “Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202” for more information on minimum sample submission requirements. Permit requirements for a specific waterworks may require more sampling than outlined in the department’s monitoring guidelines. If consumers need more information on water regulations and the nature and significance of specific water tests, more detailed information is available from: [www.saskh2o.ca](http://www.saskh2o.ca).

### Water Quality Standards

#### Bacteriological Quality

<u>Parameter/Location</u>	<u>Limit</u>	<u># of Regular Samples Required to be Submitted</u>	<u># of Regular Samples Submitted (%)</u>	<u>Total # of Samples Submitted (Reg+Rpt+Spcl)</u>	<u>Total # of Positive Samples Submitted (%)</u>
Total Coliform and Background Bacteria	0 Organisms/100 mg/L Less than 200 Orgs./100 mL	<b>26</b>	<b>26 (100%)</b>	<b>25+1+0</b>	<b>0 (0%)</b>

The owner/operator is responsible to ensure that one hundred percent of all bacteriological samples are submitted as required. All waterworks are required to submit samples for bacteriological water quality, the frequency of monitoring depends on the population served by the waterworks.

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

<u>Parameter</u>	<u>Minimum Limit (mg/L)</u>	<u>Free Chlorine Residual Range</u>	<u>Total Chlorine Residual Range</u>	<u>Average Free Chlorine (mg/L)</u>	<u>Average Total Chlorine (mg/L)</u>
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	<b>0.32 – 1.37mg/l</b>	<b>0.55 – 1.52mg/l</b>	<b>0.72mg/l</b>	<b>1.07mg/l</b>

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual OR 0.5 mg/L total chlorine residual is required at all times throughout the distribution system unless otherwise approved.

### **Chemical – Trihalomethanes and Haloacetic Acids**

<b>Parameter</b>	<b>Limit IMAC (ug/L)</b>	<b>Sample Result (average)</b>	<b># Samples Required</b>	<b># Samples Submitted</b>
Trihalomethanes	100	64.2	4	4
Haloacetic Acids (HAA5)	80	32.75	4	4

Trihalomethanes are generated during the water disinfection process as a by-product of reactions between chlorine and organic material. Trihalomethanes are generally found only in drinking water obtained from surface water supplies. Trihalomethanes are to be monitored on a quarterly basis and the Interim Maximum Acceptable Concentration (IMAC) result is expressed as an average of 4 quarterly samples. Only water supplies derived from surface water or groundwater under the influence of surface water are usually required to monitor for trihalomethanes.

Haloacetic acids can be formed by chlorination, ozonation or chloramination of water with formations promoted by slightly acidic water, high organic matter content and elevated temperature. Chlorine from the water disinfection process can react with organic matter and small amounts of bromide present in water to produce various HAAs.

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

<b>Parameter</b>	<b>Limit (mg/L)</b>	<b>Test Level Range</b>	<b># Tests Performed</b>	<b># Tests Not Meeting Requirements</b>
Free Chlorine Residual	at least 0.1	0.46-1.38	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.*

**More information on water quality and sample submission performance may be obtained from [www.saskh2o.ca](http://www.saskh2o.ca) or from:  
Village of Tuxford Box 28 Tuxford SK S0H 4C0**

