Drinking Water Quality and Compliance
Annual Notice to Consumers

Water Security Agency 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 the Permit to Operate Waterworks. The following is a summary of the Town of Grand Coulee water quality and sample submission compliance record for the January 1– December 31, 2023 time period. This report was completed on **May 6, 2024**. Readers should refer to the Ministry of 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 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.saskh2o.ca

Water Quality Standards
Bacteriological Quality

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted (Percentage)	# of Positive Regular Submitted (Percentage)
Total Coliform and Background Bacteria	0 Organisms/100 mg/L Less than 200 Organisms/100 mL	52	52	0

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

Parameter (Percentage)	Minimum Limit (mg/L)	Free Chlorine Residual Range	Total Chlorine Residual Range	# Tests Submitted	# Inadequate Chlorine	# Proper Chlorine
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.16 to 1.25	0.20 to 1.54	**52**	**0**	**100%**

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. A proper chlorine submission is defined as a bacteriological sample submission form with both the free and total chlorine residual fields filled out. Inadequate chlorine is a result that indicates that the chlorine level is below the regulated minimums. A waterworks is required to submit chlorine residual test results on every bacteriological sample they submit.

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	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.1	0.54 to 1.43	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) Performed	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Tests Required	# Tests
Turbidity	1.0	0.18 to 0.32	0	0.32	365	365

Turbidity is a measure of water treatment efficiency. Turbidity measures the "clarity" of the drinking water and is generally reported in Nephelometric Turbidity Units (NTU). All waterworks are required to monitor turbidity at the water treatment plant. The frequency of measurement varies from daily for small systems to continuous for larger waterworks.

Chemical – Trihalomethanes

Parameter	Limit IMAC (ppb)	Sample Result (average)	# Samples Submitted	# Samples Required
Trihalomethanes	**100**	**74.325**	**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 required to monitor for trihalomethanes.

Chemical – Haloacetic Acids (HAAs)

Parameter	IMAC (ppb)	Result (average)	Submitted	Required
Haloacetic Acids	**80**	**42**	**1**	

Haloacetic Acids are generated during the water disinfection process as a by-product of reactions between chlorine and organic material. Haloacetic Acids are generally found only in drinking water obtained from surface water supplies. Haloacetic Acids 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 required to monitor for Haloacetic Acids.

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

Town of Grand Coulee
306-352-8694