

2018 Drinking Water Quality Data

Water quality data presented below has been compiled from the results of laboratory testing. Water samples were taken from the Buffalo Pound Water Treatment Plant and comprehensive water quality analyses for all parameters were conducted in the plant laboratory.

Water quality test results for bacteriological, chlorine residual and turbidity were given in the 2018 Drinking Water Quality and Compliance Report.

Parameter	Testing Result Annual Average (mg/L)	Saskatchewan Environment Water Quality Objective (mg/L)
Sodium (Na)	54.8	<200 (AO)
Sulphate (SO4)	175	<500 (AO)
Total Dissolved Solids (TDS)	432	1500
Manganese (Mn)	<DL	0.05 (AO)
Nitrate (NO3)	0.35	45
Potassium (K)	6.4	No Standard
Hardness (CaCO3)	220	800
Iron (Fe)	<DL	0.3 (IMAC)
Magnesium (Mg)	25.6	200
Calcium (Ca)	44.8	No Standard
Chloride (Cl)	20.6	<250 (AO)
Fluoride (F)	0.11	1.5
Alkalinity (total)	140	500

Notes:

1. Values are given in milligrams per litre (mg/l) which is equivalent to parts per million (ppm)
2. No fluoride was added to Regina water. Fluoride measured is naturally occurring.
3. "<" means "less than"
4. "DL" means "Detection Limit"
5. "AO" means "Aesthetic Objective"
6. "IMAC" means "Interim Maximum Allowable Concentration"

For more information, please contact the City of Regina at 306-777-7000 or visit: www.regina.ca

2018 Drinking Water Quality and Compliance Report

Annual Notice to Customers

Introduction

The City of Regina performs regular sampling at 18 locations throughout its distribution system to ensure water quality throughout the City. These samples are taken to comply with the City's Permit to Operate. They include tests for chlorine and turbidity, as well as samples for bacteriological quality and trihalomethane.

Saskatchewan 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 water works in submitting samples as required by the Minister's Order or Permit to Operate a Waterworks.

The following is a summary of the City of Regina water quality and sample submission compliance records for the period January 1, 2018 - December 31, 2018. This report was completed on February 25, 2019.

Readers should refer to Saskatchewan Water Security Agency document: [Saskatchewan Drinking Water Standards and Objectives](#) for more information on minimum sample submission requirements and the meaning of each type of sample.

<http://www.saskh2o.ca/pdf/epb507.pdf>

Permit requirements for a specific waterworks may require more sampling than outlined in the Authority's monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of sulphate?"

http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html

Water Quality Standards

I. Bacteriological Quality

Parameter	Maximum Limit	Regular Samples Required	Total Samples Tested	No. of Samples Positive of Bacteria
Total Coliform and Background Bacteria	Zero Organisms/100ml Less than 200/100ml	954	963	3 ¹

II. Water Disinfection - Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit (mg/l)	Test Level Range (mg/l)	No. of Tests Required	No. of Tests Performed	No. of Samples Not Meeting Regs.
Chlorine Residual	0.1 mg/L Free	0.07 - 2.04	954	963	2 ²
	0.5 mg/L Total	0.15 - 2.19			

III. Turbidity

Parameter	Maximum Limit (NTU)	Test Level Range	No. of Tests Required	No. of Tests Performed	No. of Tests Not Meeting Requirements
Turbidity	1.0	0.09 – 1.82	954	963	1 ³

(NTU) Nephelometric Turbidity Unit - a unit of measurement used to indicate the clarity of drinking water

IV. Chemical - Trihalomethanes

Parameter	Maximum Limit (mg/l)	Sample Result (Average)	No. of Samples Required	No. of Samples Taken
Trihalomethanes	0.1	0.056 mg/l	8	8

Notes

1. Positive bacteriological samples are resampled to confirm the presence or absence of pathogens. Follow up tests confirmed the absence of pathogens in all cases.
2. Occasionally regular tests result in lower than expected chlorine results. In cases where this occurs, the suspect locations are retested to confirm whether there is adequate chlorine disinfection.
3. Occasionally regular tests result in higher than expected turbidity results. In cases where this occurs, the suspect locations are retested to confirm whether elevated turbidity results are ongoing.

Contact Information

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

City of Regina
 Tel: 306-777-7000
 Web: www.regina.ca

2018 Additional Drinking Water Data

The following water quality parameters are tested by the Buffalo Pound Water Treatment Plant and at accredited labs. The tested parameters include those required by the Water Security Agency. There are additional parameters within Health Canada guidelines which are not typically tested in this region. The City of Regina has tested these additional parameters with the results given below.

Parameter	Testing Results (mg/L)	Health Canada Guideline Water Quality Objective (mg/L)
Antimony	<0.0006	0.006
Asbestos (s/mm ²)	<0.17	NR
Azinphoz-methyl	<0.002	0.02
Calcium	48	NR
Chloramines	0.30	3
Chlorite	<0.1	1
Diquat	<0.007	0.07
Diuron	<0.01	0.15
Formaldehyde	<10	NR
Metribuzin	<0.005	0.08
Nitrolotriacetic acid (NTA)	<0.05	0.4
Nitrite	<0.033	3
N-Nitrosodimethylamine	0.00000446	0.00004
Paraquat	<0.001	0.01
Cesium-137 (Bq/L)	<1	10
Iodine-131 (Bq/L)	<1	6
Lead-210 (Bq/L)	<1.0	0.2
Radium-226 (Bq/L)	<0.010	0.5
Strontium-90 (Bq/L)	<0.10	5
Tritium (Bq/L)	<15	7000

Notes:

1. Values are given in milligrams per liter (mg/l) which is equivalent to parts per million (ppm), unless otherwise noted.
2. NR means "None required"