

Drinking Water Quality and Compliance 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 Town of Whitewood water quality and sample submission compliance record for Jan 1, 2017 to December 31, 2017. This report was completed on Jan 22, 2017. Readers should refer to Water Security Agency's Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202 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/Location | Limit | Regular Samples Required | Regular Samples Submitted | # of Positive Regular Submitted (%) |
|--|--|--------------------------|---------------------------|-------------------------------------|
| Total Coliform and Background Bacteria | 0 Organisms/100 mL Less than 200/100 mL | 52 | 52 | 0 |
| | | 52 | 52 | 0 |

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 | # Tests Required | # Tests Submitted | # Adequate Chlorine (%) |
|-------------------|------------------------------------|-------------------------------|------------------------------|------------------|-------------------|-------------------------|
| Chlorine Residual | 0.1 mg/L free OR 0.5 mg/L total | 0.37- 0.72 | 0.30-0.64 | 52 | 52 | 100% |

Turbidity – From Water Treatment Plant Records

| Parameter Performed | Limit (NTU) | Test Level Range | # Tests Not Meeting Requirements | Maximum Turbidity (NTU) | # Tests Required | # Tests Performed |
|---------------------|-------------|------------------|----------------------------------|-------------------------|------------------|-------------------|
| Turbidity | <1.0 | 0.06-0.18 | 0 | .18 | 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 Jan. 15, 2018. Sample results indicated that the provincial drinking water quality standards were not exceeded.

| Parameter | Limit MAC (mg/L) | Limit IMAC (mg/L) | Sample Result(s) | # Samples Exceeding Limit | |
|-----------------|------------------|-------------------|------------------|---------------------------|--|
| Arsenic | <10 | | 2.0 µg/L | 0% | * Results expressed as average values for communities or waterworks that fluoridate drinking water supplies or those with elevated concentrations of fluoride or nitrates. |
| Barium | <1000 | | 0.80 µg/L | 0% | |
| Boron | | <5.0 | 0.1 mg/L | 0% | |
| Cadmium | <5 | | <0.15 µg/L | 0% | |
| Chromium | <50 | | <0.19 µg/L | 0% | |
| Fluoride (avg*) | <1.5 | | <0.05 mg/L | 0% | |
| Lead | <10 | | <0.07 µg/L | 0% | |
| Nitrate (avg.*) | <45 | | 0.4 mg/L | 0% | |
| Selenium | <10 | | <1.13 µg/L | 0% | |
| Uranium | <20 | | <0.11 µg/L | 0% | |

General Chemical

| Parameter | Aesthetic Objectives* (mg/L) | Sample Results mg/L |
|------------------------|-------------------------------------|----------------------------|
| Alkalinity | <500 | 77.7 mg/L |
| Bicarbonate | No objective | 95 mg/L |
| Calcium | No objective | 2 mg/L |
| Carbonate | No Objective | 0 mg/L |
| Chloride | <250 | 1.0 mg/L |
| Conductivity | <2300 | 149 µS/cm |
| Hardness | <800 | 9 mg/L |
| Magnesium | <200 | <1 mg/L |
| pH | 6.5 – 9.0 | 7.6 pH Units |
| Sodium | <300 | 31 mg/L |
| Sulphate | <500 | 2 mg/L |
| Total dissolved Solids | <1500 | 133 mg/L |

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. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was required in **2018** and submitted on Jan. **15/2018**. Sample results indicated that there were no exceedances 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 of 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 CaCO₃, 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 www.saskh20.ca or

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