

## TOWN OF BIGGAR, SASKATCHEWAN

### Drinking Water Quality and Compliance Annual Notice to Consumers 2017

#### Introduction

Saskatchewan 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 Biggar water quality and sample submission compliance record for the January 1<sup>st</sup> to December 31<sup>st</sup>, 2017 time period. This report was completed on January 05, 2018. Readers should refer to Saskatchewan Environment's "Municipal Drinking Water Quality Monitoring Guidelines, March 2016, 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/water-eau/drink-potab/index\\_e.html](http://www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/index_e.html)

#### Water Quality Standards Bacteriological Quality

| Parameter/Location      | Limit                | Regular Samples Required | Regular Samples Submitted | # of Positive Regular Submitted (%) |
|-------------------------|----------------------|--------------------------|---------------------------|-------------------------------------|
| Total Coliform Bacteria | 0 Organisms/100mL    | 52                       | 52                        | 2%                                  |
| Background Bacteria     | Less than 200/100 mL | 52                       | 52                        | 2%                                  |

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

| Parameter         | Minimum Limit                  | Free Chlorine Residual Range | Total Chlorine Residual Range | # Tests Required | # Tests Submitted | # Adequate Chlorine (%) |
|-------------------|--------------------------------|------------------------------|-------------------------------|------------------|-------------------|-------------------------|
| Chlorine Residual | 0.1mg/L free OR 0.5 mg/L total | 0.31 – 0.96 mg/L             | 0.52 – 1.26 mg/L              | 52               | 52                | 100%                    |

#### 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 | 0.27-1.60 mg/L   | 365               | 0                                |

**Turbidity – From Water Treatment Plant Records – Distribution System / WTP**

| Parameter                                 | Limit (NTU)       | Test Level Range | # Tests Not Meeting Requirements | Maximum Turbidity | # Tests Required | # Tests Performed |
|---|-------------------|------------------|----------------------------------|-------------------|------------------|-------------------|
| Turbidity - Distribution System (Samples) | 5.0 NTU/Objective | 0.17 – 0.33 NTU  | 0                                | 0.33 NTU          | 52               | 52                |
| Turbidity - Water Treatment Plant         | 1.0 NTU/Max       | 0.14 – 0.31 NTU  | 0                                | 0.31 NTU          | 730              | 730               |

**Chemical – Health Category**

All waterworks serving less than 5000 persons are required to submit water samples for Saskatchewan Environment’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 November 27, 2017. 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) (mg/L) | # Samples Exceeding Limit |
|-----------|------------------|-------------------|-------------------------|---------------------------|
| Arsenic   | 0.010            |                   | 0.0008                  | NIL                       |
| Barium    | 1.0              |                   | 0.022                   | NIL                       |
| Boron     | 5.0              |                   | 0.19                    | NIL                       |
| Cadmium   | 0.005            |                   | 0.00001                 | NIL                       |
| Chromium  | 0.05             |                   | <0.0005                 | NIL                       |
| Fluoride  | 1.5              |                   | 0.20                    | NIL                       |
| Lead      | 0.01             |                   | 0.0002                  | NIL                       |
| Nitrate   | 45.0             |                   | 0.10                    | NIL                       |
| Selenium  | 0.01             |                   | 0.0001                  | NIL                       |
| Uranium   | 0.02             |                   | 0.0084                  | NIL                       |

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

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