

# Town of Eston 2017 Drinking Water Quality and Compliance Annual Notice to Consumers

#### Introduction

The 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 a waterworks. The following is a summary of the **Town of Eston** water quality and sample submission compliance record for the 2017 period. This report was completed on 06/30/2018. Readers should refer to Water Security Agency's Municipal Drinking Water Quality Monitoring Guidelines, June 2015, EPB 502 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, more detailed information is available from: <a href="http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index\_e.html">http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index\_e.html</a>.

# Water Quality Standards Bacteriological Quality

| Parameter/Location  | Limit                | Regular Samples<br>Required | Regular Samples<br>Submitted | # of Positive Regular<br>Submitted (%) |
|---------------------|----------------------|-----------------------------|------------------------------|--|
| Total Coliform      | 0 Organisms/100 mL   | 52                          | 53                           | 0                                      |
| E. coli             | 0 Organisms/100 mL   | 52                          | 53                           | 0                                      |
| Background Bacteria | Less than 200/100 mL | 52                          | 53                           | 0                                      |

#### Water Disinfection -

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

| Parameter | Minimum<br>Limit | Total Chlorine<br>Residual Range | Free Chlorine<br>Residual Range | # Tests<br>Required | # Tests<br>Submitted | # Adequate<br>Chlorine (%) |
|-----------|------------------|----------------------------------|---------------------------------|---------------------|----------------------|----------------------------|
| Chlorine  | 0.1 mg/L free OR |                                  |                                 |                     |                      |                            |
| Residual  | 0.5 mg/L total   | 0.36-1.36                        | 0.17-1.05                       | 52                  | 53                   | 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<br>Range | # Tests#<br>Performed | Tests Not Meeting<br>Requirements |  |
|------------------------|--------------|---------------------|-----------------------|-----------------------------------|--|
| Free Chlorine Residual | at least 0.1 | 0.11-1.73           | 757                   | 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<br>(NTU) | Test Level<br>Range | # Tests Not Meeting<br>Requirements | Maximum<br>Turbidity (NTU) | # Tests<br>Required | # Tests<br>Performed |  |
|-----------|----------------|---------------------|-------------------------------------|----------------------------|---------------------|----------------------|--|
| Turbidity | 0.30           | 0.11-1.98           | 4                                   | 0.42                       | 52                  | 53                   |  |

## **Chemical – Health Category**

All waterworks serving less than 5,000 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 2017. Sample results indicated that the provincial drinking water quality standards were not exceeded.

|                 | Limit     | Limit       | Sample    | # Samples       |
|-----------------|-----------|-------------|-----------|-----------------|
| Parameter       | MAC(mg/L) | IMAC (mg/L) | Result(s) | Exceeding Limit |
| Arsenic         | 0.010     |             | 0.056     | 0               |
| Barium          | 1.0       |             | 0.051     | 0               |
| Boron           |           | 5.0         | 0.09      | 0               |
| Cadmium         | 0.005     |             | 0.00001   | 0               |
| Chromium        | 0.05      |             | 0.00005   | 0               |
| Fluoride (avg*) | 1.5       |             | 0.22      | 0               |
| Lead            | 0.01      |             | 0.0001    | 0               |
| Nitrate (avg.*) | 45.0      |             | 0.4       | 0               |
| Selenium        | 0.01      |             | 0.0002    | 0               |
| Uranium         | 0.02      |             | 0.004     | 0               |

# **Chemical – Trihalomethanes (THMs)**

| Parameter        | THMs<br>Limit (mg/L) | Sample | # Samples<br>Result (average) | # Samples<br>Required Submitted |  |
|------------------|----------------------|--------|-------------------------------|---------------------------------|--|
| Trihalomethanes  | 0.1                  | 46     | 4 (1 every 3 months)          | 4                               |  |
| Haloacetic Acids | 0.80                 | 15.9   | 4 (1 every 3 months)          | 4                               |  |

#### **General Chemical**

All waterworks serving less than 5,000 persons are required to submit water samples for SE's General Chemical once per three months every second year if a surface water source.

The last sets of quarterly samples for General Chemical analysis were required on (insert year or sample submission period required) and were submitted on 2017.

| Parameter              | Aesthetic<br>Objectives (mg/L) | Sample Results<br>(average) | # Samples<br>Required | # Samples<br>Submitted |
|------------------------|--------------------------------|-----------------------------|-----------------------|------------------------|
| Alkalinity             | 500                            | 184                         | 3                     | 3                      |
| Bicarbonate            | No Objective                   | 224                         | 3                     | 3                      |
| Calcium                | No Objective                   | 56                          | 3                     | 3                      |
| Carbonate              | No Objective                   | 0                           | 3                     | 3                      |
| Chloride               | 250                            | 19.5                        | 3                     | 3                      |
| Conductivity           | No Objective                   | 1088                        | 3                     | 3                      |
| Hardness               | 800                            | 246                         | 3                     | 3                      |
| Magnesium              | 200                            | 26                          | 3                     | 3                      |
| PH                     | No Objective                   | 7.9                         | 3                     | 3                      |
| Sodium                 | 300                            | 46                          | 3                     | 3                      |
| Sulphate               | 500                            | 141                         | 3                     | 3                      |
| Total Dissolved Solids | 1500                           | 517                         | 3                     | 3                      |

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

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