Drinking Water Quality and Compliance Northern Settlement of Wollaston Lake – 2021 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 Northern Settlement of Wollaston Lake water quality and sample submission compliance record for the January 1, 2021 to December 31, 2021 time period. This report was completed on June 24, 2022. Readers should refer to Water Security Agency's <u>Municipal Drinking Water Quality Monitoring</u> <u>Guidelines, June 2015, EPB 502</u> 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: <u>http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html</u>.

Water Quality Standards

Bacteriological Quality

| | | Regular Sam | ples Regular Samples | # of Positive Regular | |
|---------------------|----------------------|-------------|----------------------|-----------------------|--|
| Parameter/Location | Limit | Required | Submitted | Submitted (%) | |
| Total Coliform and | 0 Organisms/100 mL | 24 | 11 | 0% | |
| E. coli | 0 Organisms/100 mL | 24 | 5 | 0% | |
| Background Bacteria | Less than 200/100 mL | | | | |

Water Disinfection –

| Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples | | | | | | | |
|--|------------------|----------------|----------------|----------|-----------|--------------|--|
| _ | Minimum | Total Chlorine | Free Chlorine | # Tests | # Tests | # Adequate | |
| Parameter | Limit | Residual Range | Residual Range | Required | Submitted | Chlorine (%) | |
| Chlorine | 0.1 mg/L free OR | | | | | | |
| Residual | 0.5 mg/L total | 0.20 to 0.76 | 0.13 to .72 | 24 | 10 | 50% | |

<u>Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-From</u> <u>Water Treatment Plant Records</u>

| | | Test Level | # Tests | # Tests Not Meeting |
|------------------------|--------------|--------------|-----------|---------------------|
| Parameter | Limit (mg/L) | Range | Performed | Requirements |
| Free Chlorine Residual | at least 0.1 | 0.02 to 1.56 | 353 | 11 |

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.

| <u>Turbidity – From Water Treatment Plant Records</u> | | | | | | | |
|---|--------------------|-----------------------|---------------------|-----|-----------------|----------|-----------|
| Parameter | Limit | Test Level # Tests | # Tests Not Meeting | | Maximum | # Tests | # Tests |
| | (NTU) Performed | Range | Requirements | | Turbidity (NTU) | Required | Performed |
| Turbidity | >0.3 NTU | No Data | 24 | N/A | 2 | 4 | 0 |





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 August 26, 2020. Sample results indicated that the provincial drinking water quality standards were not exceeded. The next required sample to be submitted is due in 2022.

<u>Chemical – Trihalomethanes (THMs)</u>

| Parameter | THMs Limit (mg/L) | Sample Result (average) | # Samples) Required | # Samples Submitted |
|------------------|----------------------|----------------------------|-------------------------|------------------------|
| Trihalomethanes | 0.1 | 0.035 | 4 (1 every 3 months) | 3 |
| Haloacetic Acids | 0.08 | 0.025 | 4 (1 every 3 months) | 3 |

General Chemical

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 and once per three months every second year if a surface water or blended surface/groundwater 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 submitted on August 26, 2020. Sample results indicated that there were no exceedences of the provincial aesthetic objectives for the General Chemical. The next sample is due in 2022.

The Northern Settlement of Wollaston Lake's Permit to Operate a Waterworks duration is from March 31, 2020 and expires on March 31, 2022. The permit is posted in the Water Testing Building or copies can be obtained from the address below.

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

Northern Municipal Trust Account Northern Settlement of Wollaston Lake C/O NMS Advisor Box 113 LA RONGE, SK SOJ 1L0 Tel: 1-800-663-1555 Fax: 1-306-425-2401 E-mail address: nms@gov.sk.ca

June 2015 EPB 502



Saskatchewan Ministry of Environment

