# Drinking-Water Systems Regulation O. Reg. 170/03

## OPTIONAL ANNUAL REPORT TEMPLATE

| | |
|---|---|
| **Drinking-Water System Number:** | 260001669 |
| **Drinking-Water System Name:** | Lone Pine Water Treatment Plant – Port Severn |
| **Drinking-Water System Owner:** | District Municipality of Muskoka |
| **Drinking-Water System Category:** | Large Municipal Residential |
| **Period being reported:** | January 01 to December 31, 2024 |

***Complete if your Category is Large Municipal Residential or Small Municipal Residential***

**Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [ X ]**

**Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]**

**Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.**

**District Municipality of Muskoka**
**70 Pine Street**
**Bracebridge, Ontario**
**P1L 1N3**
**(705) 645-6764**
www.muskoka.on.ca

***Complete for all other Categories.***

**Number of Designated Facilities served:**

N/A

**Did you provide a copy of your annual report to all Designated Facilities you serve?**
**Yes [ ] No [ ]**

**Number of Interested Authorities you report to:** N/A

**Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?**
**Yes [ ] No [ ]**

**Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report**

**List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:**

| Drinking Water System Name | Drinking Water System Number |
|---|---|
| | |

**Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?**
**Yes [ ] No [ ]**

**Indicate how you notified system users that your annual report is available, and is free of charge.**

**[ X ] Public access/notice via the web**
**[ X ] Public access/notice via Government Office**
**[ ] Public access/notice via a newspaper**
**[ X ] Public access/notice via Public Request**
**[ ] Public access/notice via a Public Library**
**[ ] Public access/notice via other method** _____

**Describe your Drinking-Water System**

The water treatment plant serving the community of Port Severn was constructed in 1997. The treatment process consists of chemically assisted coagulation-flocculation, sedimentation and filtration using dual-media filters with a combination of sand and anthracite coal. Disinfection in a post-treatment chlorine contact chamber is followed by fluoridation and final pH adjustment before the treated water is pumped to our customers. Our waterworks currently serves a population of approximately 750 persons. The rated water production capacity of the plant is 1900 cubic meters per day. Our raw water source is Little Lake and the intake is located two meters above the lakebed at a depth of 4.5 meters and about 255 meters from shore.

**List all water treatment chemicals used over this reporting period**

Sodium Hypochlorite, Aluminum Sulphate, Sodium Hydroxide, Fluoride.

**Were any significant expenses incurred to?**

**[ ]** Install required equipment
**[ ]** Repair required equipment
**[ ]** Replace required equipment

**Please provide a brief description and a breakdown of monetary expenses incurred**

**Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre**

| Incident Date | Parameter | Result | Unit of Measure | Corrective Action | Corrective Action Date |
|---|---|---|---|---|---|
| Apr 16, 2024 | Loss of Pressure – Watermain Break | N/A | N/A | Watermain was repaired, distribution system flushed, chlorine residuals confirmed and bacti samples gathered and returned clear of E.Coli/Total Coliform | April 19, 2024. |
| May 06, 2024 | Sodium | 22.8 | mg/L | Adverse sodium reported and resampled. Result 24.5 mg/L. | May 17, 2024 |

**Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.**

| | Number of Samples | Range of E.Coli Or Fecal Results (min #)-(max #) | Range of Total Coliform Results (min #)-(max #) | Number of HPC Samples | Range of HPC Results (min #)-(max #) |
|---|---|---|---|---|---|
| **Raw** | 53 | 0 – NDOGT | 0 – NDOGT | N/A | N/A |
| **Treated** | 53 | 0 – 0 | 0 – 0 | 53 | 0 – 6 |
| **Distribution** | 159 | 0 - 0 | 0 - 0 | 106 | 0 - 3 |

**Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.**

| | Number of Grab Samples | Range of Results (min #)-(max #) | Geometric Mean Average |
|---|---|---|---|
| **Turbidity** | 8760 | 0.06 – 0.11 NTU | 0.08 NTU |
| **Chlorine** | 8760 | 1.30 - 2.00 mg/l | 1.61 mg/l |
| **Fluoride** (If the DWS provides fluoridation) | 8760 | 0.35 – 0.80 mg/l | 0.53 mg/l |

*__NOTE__: For continuous monitors use 8760 as the number of samples.*

*__NOTE__: Record the unit of measure if it is __not__ milligrams per litre.*
*MDL = Method Detection Limit*

**Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.**

| Date of legal instrument issued | Parameter | Date Sampled | Result | Unit of Measure |
|---|---|---|---|---|
| . | | | | |

**Summary of Inorganic parameters tested during this reporting period or the most recent sample results**

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Antimony** | May 06/2024 | 0.6 | µg/L | No |
| **Arsenic** | May 06/2024 | 0.2 | µg/L | No |
| **Barium** | May 06/2024 | 19.2 | µg/L | No |
| **Boron** | May 06/2024 | 9 | µg/L | No |
| **Cadmium** | May 06/2024 | 0.003 | µg/L | No |

| | | | | |
|---|---|---|---|---|
| **Chromium** | May 06/2024 | 0.18 | µg/L | No |
| ***Lead** | May 06/2024 | | µg/L | No |
| **Mercury** | May 06/2024 | 0.01 | µg/L | No |
| **Selenium** | May 06/2024 | 0.04 | µg/L | No |
| **Sodium** | May 06/2024 | 19.3 | mg/L | No |
| **Uranium** | May 06/2024 | 0.005 | µg/L | No |
| **Fluoride** | May 06/2024 | 0.45 | mg/L | No |
| **Nitrite** | Feb 05/2024 | 0.003 | mg/L | No |
| **Nitrate** | Feb 05/2024 | 0.078 | mg/L | No |
| **Nitrite** | May 06/2024 | 0.003 | mg/L | No |
| **Nitrate** | May 06/2024 | 0.064 | mg/L | No |
| **Nitrite** | Aug 06/2024 | 0.003 | mg/L | No |
| **Nitrate** | Aug 06/2024 | 0.037 | mg/L | No |
| **Nitrite** | Nov 04/2024 | 0.003 | mg/L | No |
| **Nitrate** | Nov 04/2024 | 0.012 | mg/L | No |

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems.

## Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems**,** small municipal residential systems, and non-municipal year-round residential systems)

| Location Type | Number of Samples | Range of Lead Results (min#) – (max #) | Geometric Mean Average | Unit of Measure | Number of Exceedances |
|---|---|---|---|---|---|
| **Plumbing** | 0 | N.A. | N.A. | µg/L | N.A. |
| **Distribution** | 4 | 0.02 – 0.04 | 0.03 | µg/L | 0 |

## Summary of Organic parameters sampled during this reporting period or the most recent sample results

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Alachlor** | May 06/2024 | 0.02 | µg/L | No |
| **Atrazine+N-dealkylated Metabolites** | May 06/2024 | 0.01 | µg/L | No |
| **Azinphos-methyl** | May 06/2024 | 0.05 | µg/L | No |
| **Benzene** | May 06/2024 | 0.32 | µg/L | No |
| **Benzo(a)pyrene** | May 06/2024 | 0.004 | µg/L | No |
| **Bromoxynil** | May 06/2024 | 0.33 | µg/L | No |
| **Carbaryl** | May 06/2024 | 0.05 | µg/L | No |
| **Carbofuran** | May 06/2024 | 0.01 | µg/L | No |
| **Carbon Tetrachloride** | May 06/2024 | 0.17 | µg/L | No |
| **Chorpyrifos** | May 06/2024 | 0.02 | µg/L | No |
| **Diazinon** | May 06/2024 | 0.02 | µg/L | No |

| | | | | |
|---|---|---|---|---|
| **Dicamba** | May 06/2024 | 0.2 | µg/L | No |
| **1,2 Dichlorobenzene** | May 06/2024 | 0.41 | µg/L | No |
| **1,4 Dichlorobenzene** | May 06/2024 | 0.36 | µg/L | No |
| **1,2 Dichloroethane** | May 06/2024 | 0.35 | µg/L | No |
| **1,1 Dichloroethylene** | May 06/2024 | 0.33 | µg/L | No |
| **Dichloromethane** | May 06/2024 | 0.35 | µg/L | No |
| **2,4 Dichlorophenol** | May 06/2024 | 0.15 | µg/L | No |
| **2,4-D** | May 06/2024 | 0.19 | µg/L | No |
| **Diclofop-Methyl** | May 06/2024 | 0.4 | µg/L | No |
| **Dimethoate** | May 06/2024 | 0.06 | µg/L | No |
| **Diquat** | May 06/2024 | 1 | µg/L | No |
| **Diuron** | May 06/2024 | 0.03 | µg/L | No |
| **Glyphosate** | May 06/2024 | 1 | µg/L | No |
| **Malathion** | May 06/2024 | 0.02 | µg/L | No |
| **MCPA** | May 06/2024 | 0.00012 | µg/L | No |
| **Metolachor** | May 06/2024 | 0.01 | µg/L | No |
| **Metribuzin** | May 06/2024 | 0.02 | µg/L | No |
| **Monochlorobenzene** | May 06/2024 | 0.3 | µg/L | No |
| **Paraquat** | May 06/2024 | 1 | µg/L | No |
| **Pentachlorophenol** | May 06/2024 | 0.15 | µg/L | No |
| **Phorate** | May 06/2024 | 0.01 | µg/L | No |
| **Picloram** | May 06/2024 | 1 | µg/L | No |
| **PCB** | May 06/2024 | 0.04 | µg/L | No |
| **Prometryne** | May 06/2024 | 0.03 | µg/L | No |
| **Simazine** | May 06/2024 | 0.01 | µg/L | No |
| **THM** (NOTE: Annual average of 4 samples – Distribution system) | Feb 05/2024 - Nov 04/2024 | 56 | µg/L | No |
| **HAA** (NOTE: Annual average of 4 samples – Distribution system) | Feb 05/2024 - Nov 04/2024 | 43.98 | µg/L | No |
| **Terbufos** | May 06/2024 | 0.01 | µg/L | No |
| **Tetrachloroethylene** | May 06/2024 | 0.35 | µg/L | No |
| **2,3,4,6 - Tetrachlorophenol** | May 06/2024 | 0.2 | µg/L | No |
| **Triallate** | May 06/2024 | 0.01 | µg/L | No |
| **Trichloroethylene** | May 06/2024 | 0.44 | µg/L | No |
| **2,4,6,- Trichlorophenol** | May 06/2024 | 0.25 | µg/L | No |
| **Trifluralin** | May 06/2024 | 0.02 | µg/L | No |
| **Vinyl Chloride** | May 06/2024 | 0.17 | µg/L | No |

**List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.**

| Parameter | Result Value | Unit of Measure | Date of Sample |
|---|---|---|---|
| THM | 56 | µg/L | Feb 05/2024 |
| THM | 82 | µg/L | Aug 06/2024 |

| | | | |
|---|---|---|---|
| HAA | 53.6 | µg/L | Feb 05/2024 |
| HAA | 52.5 | µg/L | Aug 06/2024 |
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