

Township of Georgian Bluffs



Annual Drinking Water Summary and Leak Detection and Mitigation

Memo to Council
Council Meeting
March 20, 2024

O. Reg 170/03 *Drinking Water Systems*

- Under the Safe Drinking Water Act, 2002 and the Drinking-Water Systems Regulation (O. Reg.170/03), owners and operators of drinking water systems that supply water to the public have responsibilities to ensure the water is safe to drink.

Summary of Requirements

| | |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Registration | All drinking water systems serving designated facilities must register with the Ministry of the Environment (ministry). This information is stored in the ministry's Drinking Water Information System (DWIS). |
| Microbiological sampling/testing of the raw water | Only for systems with a source that is ground water or ground water under the direct influence of surface water (known as a GUDI source). Collect samples every month from each well in the system prior to any form of treatment, and submit to a licensed laboratory for testing (<i>E. coli</i> and total coliforms only). |
| Microbiological sampling/testing of the drinking water in the distribution system or plumbing | Collect and submit samples once a month to a licensed laboratory for testing if the system is providing treatment according to the regulation (note: additional samples may be required for the non-municipal seasonal residential category). Testing for <i>E. coli</i> and total coliforms is required for all systems. Heterotrophic plate count (HPC) must also be tested if the distribution system is required to have secondary disinfection (chlorine residual). |
| Chemical sampling/testing | Collect samples from the point where water enters the distribution system or plumbing (unless otherwise specified) and submit to a licensed laboratory. Samples must be tested for nitrate and nitrite once every three months; lead every 12 months; however, the frequency for lead sampling is reduced to once every 36 months if in the most recent 24-month period there have been no lead test results that exceed the standard. (Note: these provisions are not applicable to systems serving only a school, private school or day nursery - see page 14 for more information.) All other chemical tests are performed once every 60 months. |
| Systems receiving transported water | The storage container that receives the water, e.g., a cistern, must be constructed and maintained to prevent contamination. |
| Water treatment | Ensure treatment equipment is installed and operated in accordance with the regulation. |
| Operational checks | Routine maintenance and operational checks are required to be carried out, and monitoring for chlorine residual and turbidity may be required, depending on your system. A "trained person" (someone who has taken an approved course in the last three years) is required for these activities under most circumstances. |
| Engineering evaluation reports | A licensed engineering practitioner must prepare a report on treatment equipment that includes a maintenance schedule and a statement confirming that all equipment is being installed in accordance with the regulation. Subsequent reports are only required if alterations are carried out to the system. Systems receiving transported water are not required to have an Engineering Evaluation Report. |
| Annual reports | These must be prepared every year and a copy kept on-site to be made available to the public and the Ministry of the Environment upon request. A copy must also be sent to each designated facility served by the system and the interested authority for each such designated facility. |
| Adverse test results and other problems | Report adverse test results and other problems related to improper disinfection to authorities and take corrective action. |

Summary of Requirements

Section 11 sets the regulatory requirements for Microbiological Sampling and Testing for small municipal residential systems.

In general, the Section 11 Annual Report(s) consist of the following:

- A brief description of the drinking water system;
- A description of major equipment related expenses;
- Where applicable, a summary of reports/notices submitted to the Spills Action Centre and any corrective actions taken; and
- A summary of microbiological, operational and chemical test results as required by the Regulation.

Summary of Requirements

| Water System | Table 4 Inorganic Parameters | Table 5 Lead Testing | Table 6 Organic Parameters |
|---------------------|--------------------------------------------------------|---------------------------------|---------------------------------------|
| | Exceedance of Maximum Allowable Concentration (Yes/No) | | |
| East Linton | No | No | No |
| Oxenden | No | No | No |
| Pottawatomi | No | No | No |
| Shallow Lake | No | No | No |

Summary of Requirements

Schedule 22 is the requirement for the summary reports to the municipality.

The purpose of the Schedule 22 Summary Reports is to enable the Owner to assess the capability of drinking water system(s) to meet existing and planned uses.

In general, the Schedule 22 Summary Report(s) consist of the following information:

- A list of the requirements of the Act, the regulations, the system's approval, drinking waterworks permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable to the system that were not met (e.g. non-compliances) the duration and corrective actions; and
- A summary of quantities and flowrates of water supplied, including monthly averages and maximum daily flows as well as a comparison to the rated capacity and flowrates approved in the system's approval, DWWP or MDWL.

Summary of Requirements Schedule 22

| Water System | Issues of Non-Compliance Summary Rating Record | Table 1 Non-Compliances and Corrective Actions | Table 2 Self Reported Incidents and Corrective Actions |
|--------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| East Linton | 100% | N/A | N/A |
| Oxenden | 100% | N/A | N/A |
| Pottawatomie | 99.34% | Non-compliance with O.Reg 170/03, Section 11-3(1)(3) <ul style="list-style-type: none"> • Raw water microbiological water quality monitoring requirements were not met. • A monthly raw water sample was not taken in February, 2023 | The operating authority notified MECP on April 26, 2023 that a raw water sample was missed in February 2023. <ul style="list-style-type: none"> • OCWA has met all monthly raw water regulatory sampling requirements as required since the missed sample. • OCWA has reviewed the sampling calendars and requirements to ensure the oversight does not occur again moving forward. • OCWA provided training to staff on March 16, 2023, which addressed the use of sampling schedules and sampling calendars, sample timing windows and the importance of communication and document control. |
| Shallow Lake | 100% | N/A | N/A |

Leak Detection and Mitigation

- Indira Avenue / Sutacriti Street (~0.5 l/s) on March 1, 2023
- 375 Balmy Beach Drive (~ 2.5 l/s) on September 6, 2023
- 401 Balmy Beach Drive (~ 1.6 l/s) on September 28, 2023,
- 318856 Grey Road 1, East Linton (~ 2.62 l/s) on January 25, 2024,
- ongoing leak on Indian Acres Road (~1.4 l/s).

Leak Detection and Mitigation

Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023

| Treated Water Flow | | | | | |
|--------------------|------------------------------------|---------------------------|------------------------------------|---------------------------|--------------------------------|
| Timeframe | Average Flow (m ³ /day) | Percent of Rated Capacity | Maximum Flow (m ³ /day) | Percent of Rated Capacity | Total Volume (m ³) |
| January | 776 | 29.8% | 838 | 32.2% | 24,047 |
| February | 797 | 30.7% | 880 | 33.8% | 22,310 |
| March | 761 | 29.3% | 919 | 35.3% | 23,586 |
| April | 806 | 31.0% | 958 | 36.8% | 24,188 |
| May | 947 | 36.4% | 1,154 | 44.4% | 29,371 |
| June | 865 | 33.3% | 1,552 | 59.7% | 31,520 |
| July | 1,019 | 39.2% | 1,277 | 49.1% | 31,579 |
| August | 1,048 | 40.3% | 1,262 | 48.5% | 32,487 |
| September | 960 | 36.9% | 1,182 | 45.5% | 28,793 |
| October | 753 | 29.0% | 902 | 34.7% | 23,344 |
| November | 743 | 28.6% | 802 | 30.9% | 22,302 |
| December | 747 | 28.7% | 1,032 | 39.7% | 23,152 |
| 2023 | 852 | 32.8% | 1,552 | 59.7% | 316,679 |

Leak Detection and Mitigation

- In February 2023, maximum daily water consumption reached 880 m³ / day and the average daily flow reached 797 m³/ day.
- Comparatively, from February 1st to February 29th 2024, the average daily flow was approximately 609 m³ / day and the maximum daily flow was approximately 677 m³ / day.
- This represents a 243 m³/day reduction from the 2023 average daily flow and a 188 m³/day decrease from the average daily flow observed from February 2023.

Thank-you

