

Summary Report 2020

Orangeville Drinking Water System

Town of Orangeville

Ministry of the Environment, Conservation & Parks

Municipal Drinking Water License No. 108-101

Drinking Water Works Permit No. 108-201

Water Works No. 220003252



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Section 1 – Description

This is the summary report for the Orangeville drinking water system, as required by Schedule 22 of O. Reg. 170/03, as amended, Summary Reports for Municipalities. For purposes of that regulation, the Orangeville drinking water system is considered a large municipal residential system.

Section 2 – Background

The reporting period is January 1 to December 31, 2020.

During the reporting period, the Orangeville drinking water system was operated pursuant to the Municipal Drinking Water Licenses and Drinking Water Works Permits listed below.

1. Municipal Drinking Water License (MDWL) No. 108-101 (Issue No. 2), dated December 4, 2015 and replaced by;
2. MDWL No. 108-101 (Issue No. 3), dated December 1, 2020 and expiring on November 29, 2025;
3. Drinking Water Works Permit (DWWP) No. 108-201 (Issue No. 2), dated December 4, 2015 and replaced by;
4. DWWP No. 108-201 (Issue No. 3), dated December 1, 2020.

The DWWP and MDWL were issued in accordance with Sections 40 and 44, respectively, of the Safe Drinking Water Act (SDWA), 2002.

Water takings for the drinking water system were made under Permit to Take Water (PTTW) No. 7518-8XGL8T, issued December 14, 2012 and expiring on December 31, 2022.

The summary report is required to provide the following:

1. A list of any known instances when the system failed to meet the requirements of the SDWA, the regulations, the system's MDWL, DWWP, and any order;
2. Descriptions of the measures that were taken to correct the failure;
3. A summary of the quantities and flow rates of water supplied during the reporting period;
4. The monthly average and maximum daily instantaneous peak flow rates;
5. A comparison of the data summarized above to the rated capacities and flow rates in the system's MDWL.

Section 3 - Failure to Meet Regulatory Requirements

1. Non-compliance with Sec. 27(3) and (4) of O. Reg. 128/04

Background:

O. Reg. 128/04, Sec. 27(3) requires the Operator in Charge be clearly identified when authorized entries by others are made in the water works logbooks. Sec. 27(4) requires the maker of entries in the water works logbooks be clearly and unambiguously identified in the logbook.

Description:

The Ministry of Environment, Conservation and Parks (MECP) inspection report for the Orangeville drinking water system, dated April 22, 2020, identified a small number of instances in the water works logbooks where the Operator in Charge was not clearly identified when authorized entries by others were made in the logbooks.

There were also several instances where the maker of logbook entries could not be unambiguously identified. This was due to the maker's name and initials not being included in the legend inside the front cover of the logbook(s).

Resolution:

A training session was held with Water Works Operators on January 24, 2020 to review the requirements of Sec. 27(3) and (4) of O. Reg. 128/04. The training included instruction on how to ensure compliance regarding Operator identification in the logbooks. Documentation of the training was provided to the MECP on January 31, 2020.

2. Non-compliance with Schedule 13-7 of O. Reg. 170/03

Background:

Schedule 13-7 of O. Reg. 170/03 requires that at least one water sample is taken every three (3) months (quarterly) from each water treatment system and is tested for nitrates and nitrites.

Description:

The Orangeville water system consists of twelve (12) wells and nine (9) water treatment systems. Quarterly nitrate and nitrite testing is required at each treatment system.

Water samples were collected at Orangeville Well 11 in May 2020 for second quarter testing, including nitrate and nitrite. The Town received an e-mail from the testing laboratory on June 4, 2020 advising there was a problem with the samples and some of the tests, including nitrate and nitrite, could not be completed as requested. The laboratory asked if the Town would like to undertake resampling for the missing tests.

Due to an administrative oversight, the Town did not request the resampling and the missing nitrate and nitrite testing was not redone.

Resolution:

Water Works administration Staff met on March 15, 2021 to review this incident and discuss a plan of action moving forward. Staff will develop and implement a procedure to ensure adequate oversight is provided throughout the sampling and testing process. This will help to identify problems and other items requiring follow up so they can be dealt with in a timely fashion to ensure compliance.

Section 4 - Summaries of Flow Rates and Water Supply Capacities

Table 1 summarizes the capacities of the system's water treatment facilities and the flow rates through the facilities during the reporting period. The table includes the following information.

1. The monthly average and maximum daily flow through each of the water treatment facilities, in cubic metres per month and cubic metres per day, respectively.
2. The daily instantaneous peak flow rate through each of the water treatment facilities, in litres per minute. The table includes a footnote explaining how the rates were calculated.
3. The approved rated capacity of each treatment facility, in cubic metres per day, as authorized in the Municipal Drinking Water License. None of the facilities exceeded their approved rated capacities in 2020.
4. The maximum daily flow through each treatment facility expressed as a percentage of the approved rated capacity for that facility, as authorized in the Municipal Drinking Water License.
5. Footnotes that deal specifically with the Well 2A treatment facility.

TABLE 1

**Town of Orangeville Drinking Water System
Water Treatment Facilities
2020 Capacity & Flow Summary**

| Well Field | Volumes Through Treatment Facilities | | | | Approved Rated Capacity in MDWL (m3/day) |
|------------|--------------------------------------|--|--------------------------------|---|---|
| | Monthly Average (m3/mo.) | Daily Instantaneous Peak Flow Rate (L/min.) (1) | Maximum Daily Flow (m3/day) | Max. Daily Flow as % of Approved Rated Capacity in MDWL | |
| 2A | 16,641 (2) | 552 | 795 | 61% (3) | 1,309 (3) |
| 5/5A | 86,424 | 3,427 | 4,935 | 82% | 6,000 |
| 6 | 41,922 | 1,170 | 1,685 | 47% | 3,600 |
| 7 | 26,876 | 718 | 1,034 | 79% | 1,310 |
| 8B/8C | 7,973 | 292 | 420 | 64% | 654 |
| 9A/9B | 16,758 | 555 | 799 | 91% | 878 |
| 10 | 2,293 | 681 | 981 | 68% | 1,453 |
| 11 | 25,843 | 662 | 953 | 73% | 1,309 |
| 12 | 20,544 | 733 | 1,056 | 81% | 1,309 |
| All Wells: | 239,352 | - | 11,238 | 63% | 17,822 |

Footnotes:

(1) Daily instantaneous peak flow rates are calculated by converting the maximum daily flow in m3/day to L/min. This calculation assumes the flow through the treatment facility has been continuous during the preceding 24-hour period.

(2) The Well 2A monthly average is based on a 6 month operating period. Refer to PTTW No. 7518-8XGL8T.

(3) The Well 2A maximum daily volume allowed in PTTW No. 7518-8XGL8T is only 878.4 m3/day. The maximum daily flow of 795 m3/day is **91%** of the PTTW rate.

Section 5 - Summary and Conclusion

This report will be presented to Orangeville Council at its March 22, 2021 meeting, satisfying the requirements of Schedule 22-2 (1) (a) of O. Reg. 170/03, as amended. Additionally, the report will be available to the public at no cost, and the Town will post the report on its website at www.orangeville.ca.