

February 2022

The Corporation of the Municipality of Oliver Paipoonge
3250 Highway 130
Rosslyn, Ontario
P7K 0B1

Re: 2021 Annual Summary Report for the Rosslyn Village Subdivision Drinking-Water System

Ontario's Drinking-Water Systems Regulation (O.Reg.170/03), made under the *Safe Drinking Water Act, 2002*, requires that the owner of a drinking water system prepare an annual summary for municipalities on the operation of the system and the quality of its water.

The annual summary must cover the period of January 1st to December 31st in a year and must *be prepared not later than March 31st* of the following year. Pursuant to the legislative requirements, enclosed for your records is the 2021 Annual Summary for the Rosslyn Village Subdivision Drinking-Water System.

Pursuant to the legislative requirements, *Schedule 22 Summary Reports for Municipalities*, the annual summary must:

- (a) list the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure."

- O. Reg. 170/03 s. 22 (2)

"The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement."

-O. Reg. 170/03 s. 22 (3)

In addition, Section 12 (1) - 4 - gives the direction that a copy of the annual summary for the system is given, without charge, to every person who requests a copy and be made available for inspection by any member of the public during normal business hours. The reports should be made available at the office of the municipality, or at a location that is accessible to the users of the water system.

This report was prepared by the Ontario Clean Water Agency on behalf of the Municipality of Oliver Paipoonge and is based on information kept on record by OCWA at the Rosslyn Village Subdivision Drinking-Water System. The report covers the period January 1st through to December 31st 2021.

Yours truly,

Patrick Albert

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Operations Staff – Rosslyn Drinking Water System

2021 Schedule 22 Annual Summary Report

Rosslyn Village Subdivision Drinking- Water System

February 2022

Prepared by the



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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Section 1: Introduction

This report is a summary of water quality information for the Rosslyn Village Subdivision Well Supply System, published in accordance with Schedule 22 of Ontario’s Drinking-Water Systems Regulation for the reporting period of January 1st to December 31st 2021. The Rosslyn Village Subdivision Well Supply System is categorized as a Small Municipal Residential Drinking Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Municipality of the Oliver Paipoonge. A copy of the Summary Report is to be provided to the members of the municipal council by March 31st 2022.

Section 2: What Does This Report Contain?

“The report must,

- (a) list the requirements of the Act, the regulations, the system’s approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.”

- O. Reg. 170/03 s. 22 (2)

“The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system’s approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.”

- O. Reg. 170/03 s. 22 (3)

Section 3: Daily Flow Rates

In accordance with the ***Municipal Drinking Water Licence 293-101 Schedule C: System Specific Conditions 1.0 Performance Limits***, the Rosslyn Village Subdivision Well Supply system shall be operated not to exceed the rated capacity for the maximum flow rate from the treatment subsystem to the distribution system of **249.12 m³/ day**.

The drinking-water system may be operated temporarily at a rate above the rated capacity where necessary for:

- i) the purposes of fighting a large fire or,
- ii) the maintenance of the drinking-water system

In 2021, the raw water flow meters were not working correctly. The raw water data is based off the treated water flow meter. The average monthly raw flow rate was 352.17m³; the average daily flow rate was 11.64 m³, with a maximum raw daily flow rate of 77.6m³.

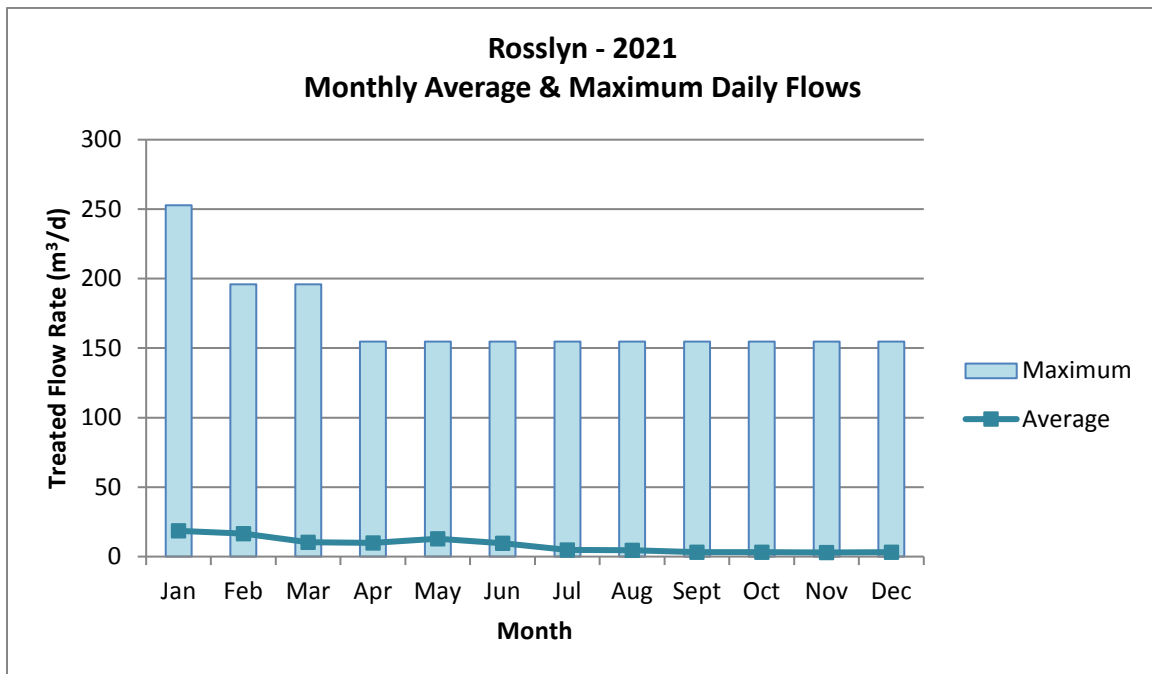
In 2021, the average monthly treated flow rate was 352.17m³; the average daily treated flow was 11.64m³ and the maximum daily treated flow for the year was 77.6m³; this represents 31.15% of the design rated capacity.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the daily maximum liters of the *Permit to Take Water* nor did the treated flows directed to the distribution system exceed the rated capacity for this system. The flow rates in the permit are in liters per minute while the plant flows are recorded in liters per second. The permit flow rates were converted to liters per second.

Monthly Raw & Treated Flow Rates for 2021

Month	Average Daily Raw Flow Rate (m ³ /d)	Maximum Daily Raw Flow Rate (m ³ /d)	Average Daily Treated Flow Rate (m ³ /d)	Maximum Daily Treated Flow Rate (m ³ /d)	Total Monthly Treated Flow Rate (m ³ /month)
January	18.52	252.8	18.52	252.8	829.4
February	16.62	195.9	16.62	195.9	634.4
March	10.25	195.9	10.25	195.9	451.1
April	9.82	154.7	9.82	154.7	419.1
May	12.84	154.7	12.84	154.7	570.7
June	9.60	154.7	9.60	154.7	412.1
July	4.73	154.7	4.73	154.7	195
August	4.56	154.7	4.56	154.7	190.3
September	3.11	154.7	3.11	154.7	128.7
October	3.20	154.7	3.20	154.7	136.9
November	2.96	154.7	2.96	154.7	122.6
December	3.18	154.7	3.18	154.7	135.7
2021 Total Treated Flows (m ³)					4226



Section 4: System Failures and Correction

The Ministry of Environment conducted an *announced* inspection of the Rosslyn Village Subdivision Well Supply System on July 20 2021. The final inspection report identified 10 non-conformance as summarized in the table below.

The 2021 final inspection rating record for Rosslyn Village Subdivision Well Supply System is not available at this time as the Inspection Rating Report (IRR) is being changed to a different system.

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status
1	Not sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA	November 30, 2021	Upon taking over the plant flow meters were not functioning/in place. Flow meters are on site and the tentative install date has been scheduled for December 2, 2021.	Completed
2	Flow measuring devices were not calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SDWA. Raw water flow meters were not in place at the time of the inspection.	November 30, 2021	Upon taking over the plant flow meters were not functioning/in place. Flow meters will be calibrated upon install (details noted above)	Completed
8	The operator-in-charge did not ensure that records were maintained of all adjustments made to the processes within his or her responsibility. Records kept by the previous operating authority did not clearly demonstrate that all records were kept for all adjustments made to the treatment processes.		OCWA started utilizing paper log books as we were brought in to operate in an emergency basis & has now transitioned to electronic log books	Complete
9	Logbooks were not properly maintained and/or did not contain the required information. During the time of inspection review period that Water Quality Services was the operating authority, there were several short comings with regards to the maintenance of logbooks and record keeping. Now that OWCA has taken over the duties of operating authority there has been significant improvement in the logbooks and record keeping.		OCWA will continue to ensure that log book maintenance and record keeping is completed at a high standard as have been done since arriving onsite.	Complete
10	Operators and maintenance personnel did not have ready access to operations and maintenance manuals. When OWCA took over the role of operating authority for the drinking water system, there were minimal operations and maintenance manual in place.		Upon taking over the plant there was not adequate O&M manual accessible (combination Operational Plan/O&M manual from 2013 not meeting requirements).	In progress – twsp/engineer

			Operational plan is completed for DWQMS Details below.	
11	The operations and maintenance manuals did not contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.		Upon taking over the plant there was not adequate O&M manual accessible. Details below.	In progress – twsp/engineer
12	The operations and maintenance manuals did not meet the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA. At the time of the last inspection, several short comings in the operations and maintenance manual were noted. The O&M manual did not meet all the conditions set out in Section 16 of the Municipal Drinking Water Licence. It is understood that OCWA is in the process of developing a new O&M manual for the system.	November 26, 2021	Upon taking over the plant there was not adequate O&M manual accessible. OCWA has completed the procurement process with 3 engineering firms and has received pricing to get an O&M manual that meets the regulations completed. The request has been submitted to the Township for review and approval.	In Progress
13	Operators were not examining continuous monitoring test results or they were not examining the results within 72 hours of the test		OCWA has been, and will continue to, ensure that 72 hour reviews are completed regularly.	Complete
14	All continuous analysers were not calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation. Calibration records could not be provided for the time period when Water Quality Services was acting as the Operating Authority.		OCWA will ensure that all continuous analyzers are calibrated in accordance with the manufacturer's requirements and that appropriate records are maintained. Calibrations were completed June 2021.	Complete
15	Records did not confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined. Records covering the inspection review period were not available for the time that Water Quality Services was acting as operating authority.		OCWA will ensure that records are kept and are available to the inspector upon request. Round sheets and additional logbook detail has been implemented to help ensure information is readily available at request.	Complete – implemented round sheets to track & noting in logbooks

Section 5: Conclusion

In the reporting year of 2021, there were eight adverse water quality incident (AWQI) reports filed as summarized in the table below.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
February 4 2021	Low free chlorine residual	0	mg/L	Improvements are ongoing through the 3 rd party reviews	March 16 2021
February 4 2021	High levels of Sodium	110	mg/L		March 17 2021
February 17 2021	Water main break at 133 Maple Street			Repaired water main, flushed, collected bacti sample	March 17 2021
February 17 2021	High levels of Arsenic	11.1	mg/L	North well not being used, using South well only for production	March 15 2021
February 22 2021	High levels of Arsenic	10.6	mg/L	North well not being used, using South well only for production	March 15 2021
June 4 2021	Low treated water chlorine residual of 0.4mg/L, CT was maintained. Also unable to receive critical control alarms, BWA issued	0.4	mg/L	System was flushed to restore higher chlorine. Instrumentation technician was able to get the alarm dialer to work. BWA lifted	June 9 2021
August 3 2021	Low chlorine on the contact loop analyzer, reading 0 mg/L. Alarm dialer did not call out to operator over the weekend. BWA issued.	0	mg/L	System was flushed to restore higher chlorine. Alarm dialer issue resolved. BWA lifted	August 10 2021
October 14 2021	Loss of pressure in distribution system due to pump kicking out. Pressure lost for 15 minutes			Issue with distribution pumps, two loss of pressure community complaints. Two sets of bacti samples collected. BWA lifted	October 19 2021

The drinking water inspection found the plant to be producing good quality water. A review of the treated water samples showed the plant met or exceeded the requirements of ODWS (Ontario's Drinking-Water Standards) except for arsenic, which is being monitored by sampling monthly.

For the operating year of 2021, the Rosslyn Village Subdivision Well Supply System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water Licence and Permit to Take Water max daily liters.