

2023 SCHEDULE 22 SUMMARY REPORT

ROSEMONT
DRINKING WATER
SYSTEM



For the period of
January 1st, 2023 to December 31st, 2023

Prepared for the Corporation of the Township of Adjala-Tosorontio by the
Ontario Clean Water Agency



This report was prepared in accordance with the requirements of [O.Reg 170/03, Schedule 22, Summary Reports for Municipalities](#) for the following system and reporting period:

Drinking-Water System Number:	220003859
Drinking-Water System Name:	Rosemont Drinking Water System
Drinking-Water System Owner:	The Corporation of the Township of Adjala-Tosorontio
Drinking-Water System Category:	Small Municipal Residential
Period being reported:	January 1, 2023 – December 31, 2023

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on May 31, 2023 for the period covering June 21, 2022 to June 7, 2023. On August 2, 2023 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 100% was received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

Table 1. Non-Compliances and Corrective Actions noted in the 2022/2023 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
<p>Non-compliance with O. Reg.170/03, Section 11-3- Raw water microbiological sampling.</p> <p>Section 6-1.1(3) requires the collection of a raw microbiological sample from each source well monthly and to be collected 20 to 40 days apart.</p> <p>While raw water samples were collected from the two source wells monthly as required on May 1, 2023 and June 12, 2023, the time between sampling fell outside of the 20 to 40 day requirement. Total time between sampling was 43 days.</p>	N/A	<ul style="list-style-type: none"> This non-compliance was self-reported by OCWA on June 13, 2023 to the MECP OCWA modified the sampling plan to prevent future recurrences This incident was considered administrative in nature and did not represent a threat to human health or the environment. No further action was required by the MECP.
<p>Non-compliance with Condition 4.2 of PTTW #3283-C72ZPGH- Monitoring conditions</p> <p>Condition 4.2 requires the collection of continuous water level data using dataloggers within each identified</p>	September 9, 2022 to November 21, 2022	<ul style="list-style-type: none"> Weekly manual level readings were collected and recorded by OCWA while the probe was inoperable. MECP was advised of the level monitoring failure on September 28, 2022 when staff determined that the probe was broken. This appears to

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
<p>production well. The data shall be reviewed and evaluated at least annually.</p> <p>The continuous level monitor in Well 1 was inoperable from approximately September 9, 2022 until November 21, 2022.</p> <p>The PTTW does not require annual provision of the level monitoring data to the MECP, but the monitoring requirement remains.</p>		<p>suffice any PTTW notification/reporting requirements.</p> <ul style="list-style-type: none"> • The SDWA and its regulations have no reporting requirements for OWRA issues. The interim corrective response was reasonable and the unit was replaced as soon as possible. • No further actions were required by the MECP.

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as a instances where any requirements of the Act, the regulations, the system’s approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

Incident	Duration	Corrective Actions
<p>Non-compliance with O. Reg.170/03, Section 11-3- raw water microbiological sampling</p> <p>Section 6-1.1(3) requires the collection of a raw microbiological sample from each source well monthly and to be collected 20 to 40 days apart.</p> <p>While raw water samples were collected from the two source wells monthly as required on May 1, 2023 and June 12, 2023, the time between sampling fell outside of the 20 to 0 day requirement. Total time between sampling was 43 days.</p>	<p>N/A</p>	<ul style="list-style-type: none"> • This non-compliance was self-reported by OCWA on June 13, 2023 to the MECP • OCWA modified the sampling plan to prevent future recurrences, and the non-compliance is identified as resolved. • This incident was considered administrative in nature and did not represent a threat to human health or the environment. • No further action required by MECP.
<p>Non-compliance with PTTW #3283-C7ZPGH, Section 4.1 Monitoring (Flow Meter Monitoring).</p>	<p>2023/11/03 to 2023/11/06</p>	<ul style="list-style-type: none"> • OCWA confirmed alarms were functional during the data loss

Incident	Duration	Corrective Actions
Due to failure the continuous flow data for Well #3 stopped recording to SCADA	(approximately 67 hours and 20 minutes)	<ul style="list-style-type: none"> • OCWA confirmed that the pre and post chlorine analyzers were trending during flow data loss event • OCWA confirmed the wells locked out wells on alarm- no concerns for an AWQI. CT was met • OCWA calculated the total Flow volume during monitoring loss: 59.95 m³ • Communications re-established and operational – Completed November 6th, 2023 at 0615hrs • Verbal and written notification of non-compliance provided on November 6, 2023. • No further actions advised by MECP

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Rosemont Drinking Water System Annual Report (Section 11).

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 7) summarize the quantities and flowrates of water supplied during the reporting period, 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.

As required by the MDWL, regulatory flow measuring devices are checked/verified and where necessary calibrated. These checks/verifications/calibrations are performed annually by a third party to ensure the flow measuring devices are within acceptable deviation limits.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	097-105 (Issue Number: 4)
Allowable Rated Capacity:	85 m ³ /day
Allowable Flowrate into Treatment System:	Not listed in MDWL

As per the MDWL, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the listed rated capacity. However, the MDWL allows a system to be operated temporarily at a maximum daily volume and/or a maximum flowrate above the values set out in the MDWL for the purposes of fighting a large fire or for the maintenance of the drinking water system.

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

Treated Water Flow ^{3A}					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	22.69	26.69%	48.30	56.82%	703.29
February	18.80	22.12%	22.99	27.05%	526.38
March	30.63	36.04%	48.61	57.19%	949.21
April	19.19	22.58%	32.98	38.80%	575.74
May	24.33	28.62%	54.24	63.81%	754.52
June	34.31	40.36%	51.88	61.04%	1,029.41
July	28.41	33.42%	35.69	41.99%	880.91
August	29.17	34.32%	46.45	54.65%	904.17
September	28.09	33.05%	55.11	64.84%	842.80
October	27.39	32.22%	53.14	62.52%	849.06
November	23.03	27.09%	52.43	61.68%	690.84
December	22.74	26.75%	50.74	59.69%	705.07
2023	25.79	30.34%	55.11	64.84%	9,411.40

^{3A}Treated water flows for the Rosemont DWS are based on the combined raw water well water flows for Well #1 (PW1A) and Well #2 (PW3A). There is only one set of pumps (one per well) responsible for the raw water taking, water that flows into the treatment system and water that flows from the treatment system into the distribution system

A review of flow information for the reporting period indicates that the drinking water system operated within the rated capacity specified in the MDWL (85 m³/day), for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

A summary of flowrates of water that flows into the treatment system can be found in Table 5 and Table 7. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into a treatment subsystem.

2.2 Raw Water

Permit to Take Water Number (PTTW):	3283-C7ZPGH
Allowable Maximum Raw Water Volume - Well #1: PW1A	33 m ³ /day
Allowable Maximum Raw Water Flowrate - Well #1: PW1A	23 L/min (0.38 L/sec)
Allowable Maximum Raw Water Volume - Well #2: PW3A	52 m ³ /day
Allowable Maximum Raw Water Flowrate - Well #2: PW3A	36 L/min (0.60 L/sec)

As per the PTTW, water shall only be taken from the specified source(s) and at the rates and amounts taken as specified in the permit.

Table 4. Raw Water Well #1(PW1A) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #1 (PW1A)					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	15.48	46.90%	17.18	52.06%	448.80
February	8.14	24.68%	10.64	32.24%	228.03
March	12.34	37.39%	19.81	60.03%	382.55
April	10.44	31.65%	19.04	57.70%	313.30
May	10.95	33.20%	19.57	59.30%	339.60
June	12.10	36.66%	18.45	55.91%	362.93
July	10.38	31.47%	22.12	67.03%	321.91
August	10.66	32.31%	17.30	52.42%	330.50
September	10.45	31.67%	20.33	61.61%	313.49
October	10.75	32.57%	20.21	61.24%	333.22
November	10.24	31.03%	20.02	60.67%	307.20
December	3.76	11.40%	20.16	61.09%	116.58
2023	10.48	31.75%	22.12	67.03%	3,798.11

A review of flow information for the reporting period indicates that Well #1- PW1A operated within the PTTW's maximum allowable daily raw water volume (33 m³/day).

Table 5. Raw Water Well #1 (PW1A) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #1 (PW1A)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	0.19	0.21
February	0.20	0.26
March	0.34	0.27

Raw Water Flowrate – Well #1 (PW1A)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
April	0.23	0.27
May	0.20	0.28
June	0.23	0.29
July	0.22	0.47 ^{5A}
August	0.24	0.30
September	0.24	0.31
October	0.22	0.29
November	0.37	0.37
December	0.10	0.39 ^{5B}
2023	0.23	0.47^{5A}

A review of flow information for the reporting period indicates that the system operated within the PTTW’s maximum allowable raw water flowrate (0.38 L/sec) for Well #1 (PW 1A) with the exception of:

- ^{5A}July 7, 2023 – Flowrate exceedance was due to flow meter calibrations
- ^{5B}December 15, 2023 – Flowrate exceedance due to flushing Well #1 to waste.

Table 6. Raw Water Well #2 (PW3A) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #2 (PW3A)					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	8.21	15.79%	32.00	61.54%	254.49
February	10.66	20.49%	13.68	26.31%	298.35
March	18.28	35.15%	29.58	56.88%	566.66
April	8.75	16.82%	20.73	39.87%	262.44
May	13.38	25.74%	35.09	67.48%	414.92
June	22.22	42.72%	33.43	64.29%	666.48
July	18.03	34.68%	23.14	44.50%	559.00
August	18.51	35.59%	29.15	56.06%	573.67
September	17.64	33.93%	34.78	66.88%	529.31
October	16.64	32.00%	33.43	64.29%	515.84
November	12.79	24.59%	32.46	62.42%	383.64
December	18.98	36.51%	31.34	60.27%	588.49
2023	13.81	26.57%	35.09	61.54%	5,613.29

A review of flow information for the reporting period indicates that the system operated within the PTTW’s maximum allowable daily raw water volume for Well #2-PW3A (52 m³/day).

Table 7. Raw Water Well #2 (PW3A) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #2 (PW3A)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	0.12	NA ^{7A}
February	0.34	NA ^{7A}
March	0.32	NA ^{7A}
April	0.36	0.56
May	0.38	0.51
June	0.42	0.51
July	0.22	0.50
August	0.24	0.50
September	0.24	0.49
October	0.22	0.49
November	0.37	0.66 ^{7B}
December	0.10	0.45
2023	0.29	0.66

^{7A}January 1 to April 12, 2023- equipment failure caused a loss of data

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate (0.60 L/sec) for Well #2 (PW3A) with the exception of:

- November 6, 2023 – New equipment startup caused momentarily flowrate exceedance