

For the period of January 1st, 2022 to December 31st, 2022

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





Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Adjala-Tosorontio: Everett Drinking Water System

This report was prepared in accordance with the requirements of <u>O.Req 170/03, Schedule 22, Summary Reports for Municipalities</u> for the following system and reporting period:

Drinking-Water System Number: Drinking-Water System Name: Drinking-Water System Owner: Drinking-Water System Category: Period being reported:

220004064
Everett Drinking Water System
The Corporation of the Township of Adjala-Tosorontio
Large Municipal Residential
January 1, 2022 - December 31, 2022

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on June 1, 2022 for the period covering June 30, 2021 to June 1, 2022. On July 7, 2022 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 2021/2022 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
N/A	N/A	N/A

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
Loss of raw water monitoring data from February 9 to February 11, 2022.	Hrs on 2022/02/09 to 1320 hrs	 Power was immediately restored upon discovery. Verified that during the period of data large CT was registered and
Power interruption at the Grohal Production Well caused a loss of monitoring data. Unable to meet monitoring conditions of 4.1 in PTTW #4367-93XLP4.	on 2022/02/11 (1 day, 20hrs and 40 min)	 data loss, CT was maintained and primary disinfection requirements were met. Backup power sources were put in place when power outages occur. Operations staff were reminded that whenever they are onsite for

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The power adapter was knocked	regular facility checks and
out of the power source on	maintenance work, full facility
February 9, 2022 during facility	checks to confirm all systems are
upgrades and was discovered on	running correctly are to be
February 11, 2022.	performed prior to departure
	 Signs with reminders of
	operations duties are posted at
	the Pumphouse on the inside of
	exit doors.

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

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 10) 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):	097-102 (Issue Number: 4)
Allowable Rated Capacity for Grohal Pumphouse:	1,958 m³/day
Allowable Rated Capacity for Ballpark Pumphouse:	1,958 m³/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.

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Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for Grohal Pumphouse^{3A} in 2022

Treated Water Flow- Grohal Pumphouse ^{3A}					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	152.64	7.80%	230.67	11.78%	4,731.84
February	143.03	7.30%	240.29	12.27%	4,004.77
March	143.62	7.34%	234.44	11.97%	4,452.09
April	178.81	9.13%	757.69	38.70%	5,364.16
May	189.80	9.69%	289.05	14.76%	5,883.85
June	183.19	9.36%	282.17	14.41%	5,495.56
July	203.05	10.37%	270.03	13.79%	6,294.61
August	194.89	9.95%	485.95	24.82%	6,041.55
September	184.72	9.43%	296.87	15.16%	5,541.61
October	222.87	11.38%	459.62	23.47%	6,908.83
November	368.21	18.81%	639.73	32.67%	11,046.37
December	369.65	18.88%	530.77	27.11%	11,459.06
2022	211.21	10.81%	757.69	38.70%	77,224.30

^{3A}Treated water flow and flowrate data for Grohal Pumphouse is based off the raw water flow and flowrate data for Grohal Production Well (PW# 1-88). There is only one set of pumps 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 Grohal Pumphouse operated within the rated capacity specified in the MDWL, 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 Grohal Pumphouse treatment subsystem can be found in Table 6. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into the treatment subsystem at Grohal Pumphouse.

Table 4. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for Ballpark Pumphouse^{4A} in 2022

Treated Water Flow- Ballpark Pumphouse ^{4A}					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	455.44	7.37%	357.98	18.28%	4475.89
February	431.93	7.03%	211.31	10.79%	3852.59
March	440.72	7.14%	221.72	11.32%	4335.34

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	Treated Water Flow- Ballpark Pumphouse ^{4A}					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)	
April	530.94	7.22%	249.76	12.76%	4241	
May	479.24	8.42%	355.21	18.14%	5112.39	
June	490.41	9.56%	334.69	17.09%	5430.92	
July	540.95	9.07%	249.01	12.72%	5507.45	
August	607.20	8.94%	279.36	14.27%	5427.57	
September	510.81	10.02%	276.15	14.10%	5884.6	
October	416.28	10.84%	533.34	27.24%	5731.49	
November ^{4B}	-	-	-	-	-	
December ^{4B}	-	-	-	-	-	
2022	167.22	8.54%	533.34	27.24%	49,999.24	

^{4A}Treated water flow and flowrate data for Ballpark Pumphouse is based off the raw water flow and flowrate data for Ballpark Production Well/ PW#1-90. There is only one set of pumps 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 Ballpark Pumphouse operated within the rated capacity specified in the MDWL, 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 Ballpark Pumphouse treatment subsystem can be found in Table 10. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into the treatment subsystem at Ballpark Pumphouse.

^{4B}Ballpark Production well was offline from October 31, 2022 until the end of the reporting year for below-grade well inspections. No raw water flows or flowrates were recorded and no water was sent into the treatment system or from the Ballpark Pumphouse to the distribution system during this timeframe.

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2.2 Raw Water

Permit to Take Water Number (PTTW):	4367-93XLP4
Allowable Maximum Raw Water Volume – Grohal	1,960.00 m ³ /day
Production Well/ PW# 1-88:	
Allowable Maximum Raw Water Flowrate - Grohal	22.67 L/sec
Production Well/ PW# 1-88:	
Allowable Maximum Volume of Raw Water – Grohal	950 m ³ /day
Standby Well/ PW#3-78:	
Allowable Maximum Raw Water Flowrate – Grohal	1.10 L/sec
Standby Well/ PW#3-78:	
Allowable Maximum Volume of Raw Water – Ballpark	1,960.00 m³/day
Production Well/ PW#1-90:	
Allowable Maximum Raw Water Flowrate – Ballpark	22.70 L/sec
Production Well/ PW#1-90:	

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 5. Raw Water (Grohal Production Well/ PW# 1-88) Monthly Average, Maximum Flow and Total Volume for 2022

	Raw Water Flow – Grohal Production Well- PW 1-88					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)	
January	152.64	7.79%	230.67	11.77%	4731.84	
February	143.03	7.30%	240.29	12.26%	4004.77	
March	143.62	7.33%	234.44	11.96%	4452.09	
April	178.81	9.12%	757.69	38.66%	5364.16	
May	189.80	9.68%	289.05	14.75%	5883.85	
June	183.19	9.35%	282.17	14.40%	5495.56	
July	203.05	10.36%	270.03	13.78%	6294.61	
August	194.89	9.94%	485.95	24.79%	6041.55	
September	184.72	9.42%	296.87	15.15%	5541.61	
October	222.87	11.37%	459.62	23.45%	6908.83	
November	368.21	18.79%	639.73	32.64%	11,046.37	
December	369.65	18.86%	530.77	27.08%	11,459.06	
2022	211.57	10.79%	757.69	38.66%	77,224.30	

A review of flow information for the reporting period indicates that the Grohal Production well (PW 1-88) operated within the PTTW's maximum allowable daily raw water volume.

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Table 6. Raw Water (Grohal Production Well/ PW# 1-88) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Grohal Production Well- PW 1-88					
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)			
January	18.11	18.62			
February	18.05	18.57			
March	18.05	18.65			
April	18.04	21.45			
May	18.05	21.49			
June	17.77	21.07			
July	17.63	44.48 ^{6A}			
August	17.71	21.04			
September	17.81	21.09			
October	17.85	21.13			
November	17.96	21.11			
December	17.96	21.13			
2022	17.92	44.48			

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for the Grohal Production Well (PW 1-88) with the exception of:

• ^{6A}July 27, 2022 – Flowrate exceedances due to external third party flow measuring device verification and calibration.

Table 7. Raw Water (Grohal Standby Well- PW #3-78) Monthly Average, Maximum Flow and Total Volume for 2022

	Raw Water Flow – Grohal Standby Well (PW #3-78)				
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	2.62	0.28%	3.19	0.34%	13.12
February	2.13	0.22%	2.60	0.27%	8.54
March	1.68	0.18%	2.04	0.21%	6.74
April	2.20	0.23%	2.92	0.31%	8.80
May	2.19	0.23%	2.73	0.29%	10.93
June	2.18	0.23%	2.98	0.31%	8.72
July	2.19	0.23%	3.05	0.32%	8.76
August	2.14	0.23%	3.11	0.33%	10.70
September	2.19	0.23%	2.96	0.31%	8.74
October	2.04	0.21%	2.42	0.25%	10.18
November	2.22	0.23%	2.96	0.31%	8.87

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Raw Water Flow – Grohal Standby Well (PW #3-78)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
December	2.22	0.23%	2.82	0.30%	8.89
2022	2.17	0.34%	3.19	0.34%	112.99

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 Grohal Standby Well (PW #3-78). The flow from this well is directed to waste and not the distribution system.

Table 8. Raw Water Grohal (Standby Well- PW #3-78) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Grohal Standby Well (PW #3-78)				
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)		
January	10.31	10.37 ^{8A}		
February	4.34	10.37 ^{8A}		
March	10.07	10.34 ^{8A}		
April	9.58	10.37 ^{8A}		
May	10.62	10.37 ^{8A}		
June	9.49	10.37 ^{8A}		
July	2.88	10.38 ^{8A}		
August	1.18	10.39 ^{8A}		
September	9.78	10.38 ^{8A}		
October	9.31	10.38 ^{8A}		
November	9.47	10.36 ^{8A}		
December	7.28	10.36 ^{8A}		
2022	8.01	10.39 ^{8A}		

A review of flow information for the reporting period indicates that the system operated outside of the PTTW's the maximum allowable raw water flowrate for Grohal Standby Well (PW #3-78) throughout the reporting period due to:

• ^{8A}Flowrate exceedances attributed to infrequent well start-ups/runs.

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Table 9. Raw Water (Ballpark Production Well- PW #1-90) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Ballpark Production Well (PW #1-90)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	144.38	7.37	357.98	18.26	4,475.89
February	137.59	7.02	211.31	10.78	3,852.59
March	139.85	7.14	221.72	11.31	4,335.34
April	141.37	7.21	249.76	12.74	4,241.00
May	164.92	8.41	355.21	18.12	5,112.39
June	187.27	9.55	334.69	17.08	5,430.92
July	177.66	9.06	249.01	12.70	5,507.45
August	175.08	8.93	279.36	14.25	5,427.57
September	196.15	10.01	276.15	14.09	5,884.60
October	212.28	10.83	533.34	27.21	5,731.49
November ^{9A}	-	-	-	-	-
December ^{9A}	-	-	-	-	-
2022	2.17	8.53%	533.34	27.12%	49,999.24

^{9A}Ballpark Production well was offline from October 31, 2022 until the end of the reporting year for below-grade well inspections. No raw water flows or flowrates were recorded and no water was sent into the treatment system or from the Ballpark Pumphouse to the distribution system during this timeframe.

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 Ballpark Production Well (PW #1-90).

Table 10. Raw Water (Ballpark Production Well- PW #1-90) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Ballpark Production Well (PW #1-90)			
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)	
January	20.28	20.68	
February	20.27	20.52	
March	19.65	20.57	
April	19.65	22.01	
May	20.00	21.93	
June	19.90	22.03	
July	19.82	51.63 ^{10A}	
August	19.83	21.83	
September	19.90	21.86	

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Raw Water Flowrate – Ballpark Production Well (PW #1-90)				
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)		
October	19.92	21.98		
November ^{10B}	-	-		
December ^{10B}	-	-		
2022	19.92	51.62		

^{10B} Ballpark Production well was offline from October 31, 2022 until the end of the reporting year for below-grade well inspections. No raw water flows or flowrates were recorded and no water was sent into the treatment system or from the Ballpark Pumphouse to the distribution system during this timeframe.

A review of flow information for the reporting period indicates that the system operated within the PTTW's the maximum allowable raw water flowrate for Ballpark Production Well (PW #1-90) with the exception of:

• ^{10A}July 27, 2022 – Flowrate exceedances due to external third party flow measuring device verification and calibration.