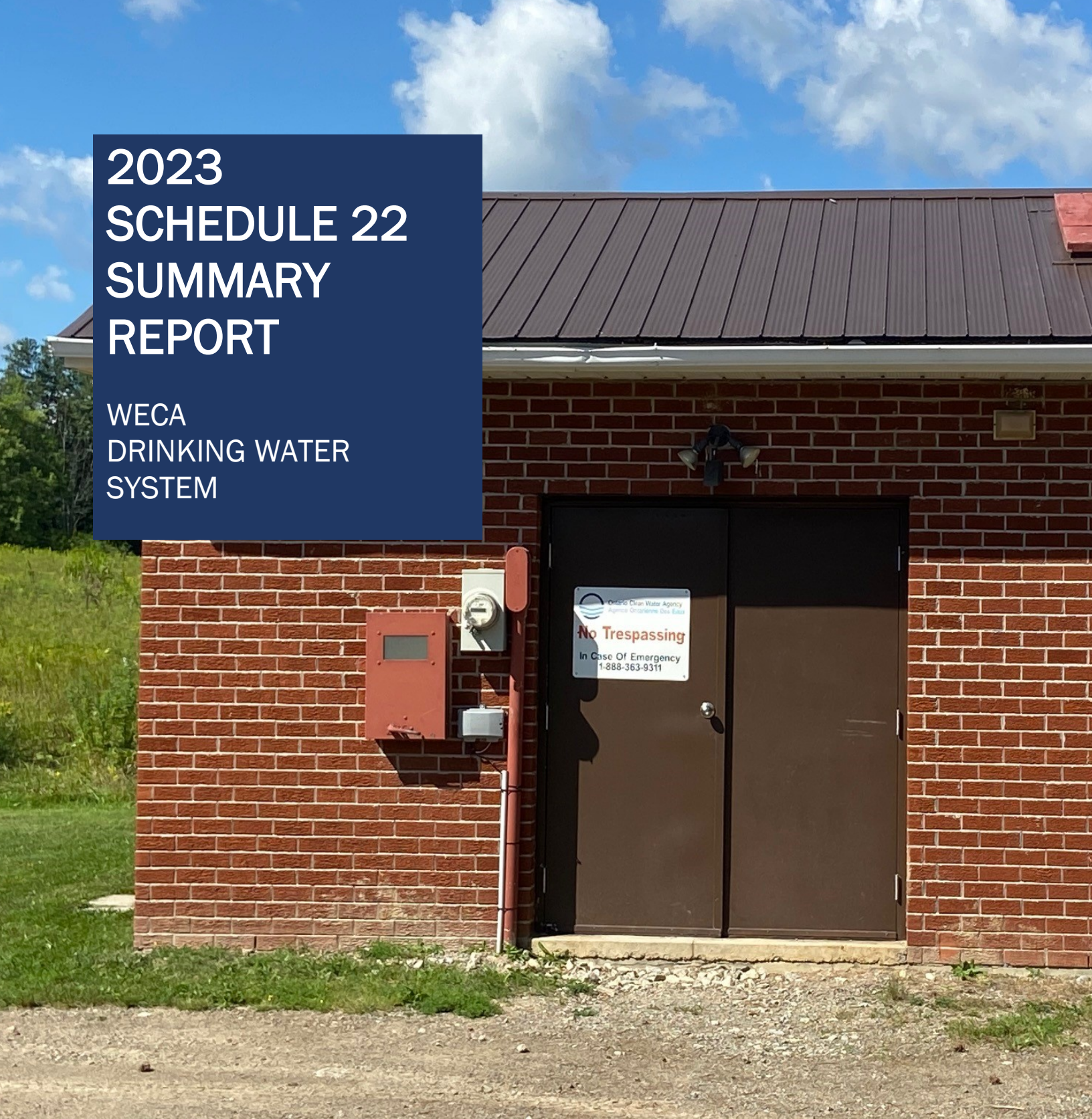


2023 SCHEDULE 22 SUMMARY REPORT

WECA
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:	220010048
Drinking-Water System Name:	Weca Drinking Water System
Drinking-Water System Owner:	The Corporation of the Township of Adjala-Tosorontio
Drinking-Water System Category:	Large 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 December 20, 2023 for the period covering December 2, 2022 to December 20, 2023. The Inspection Report and the Inspection Summary Rating Record (IRR) are still pending.

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
N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as 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
Non compliance with PTTW #0033-C2YNBY, Section 4.1 Monitoring Requirements The flow meter responsible for collecting the total daily, average and maximum volume of water, and the rate at which it is taken failed for Weca Well #1.	June 13, 2023 to June 30, 2023	<ul style="list-style-type: none"> OCWA ordered and installed a new flow meter on September 25, 2023. Prior to the installation of the new flow meter- the flow meter from the non-operational Well #3 was installed on Well #1 on June 30, 2023. OCWA ran Well #1 with tight margins to Well #2 as a lag Well and most of

<p>As such, no raw water flow information was recorded from June 13, 2023 until June 30, 2023. Flow data was calculated manually based on the hour meter and historical trending data.</p>		<p>the water supply was produced from Well #2</p> <ul style="list-style-type: none"> • OCWA calculated flows manually based on the hour meter and peak flow rate • Verbal notification of non-compliance provided on June 28 and written notice provided on June 29, 2023 to the MECP.
--	--	--

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

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 14) 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):	097-101 (Issue Number: 5)
Allowable Rated Capacity for Well No. 1 Pumphouse:	261 m ³ /day
Allowable Rated Capacity for Well No. 2 Pumphouse:	655 m ³ /day
Allowable Rated Capacity for Well No. 3 Pumphouse (Loretto Heights):	137 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 Well No. 1 Pumphouse^{3A} in 2023

Treated Water Flow- Well No. 1 Pumphouse ^{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	23.39	8.96%	30.82	11.81%	725.02
February	20.69	7.93%	24.94	9.56%	579.20
March	17.74	6.80%	27.23	10.43%	549.89
April	8.81	3.38%	16.34	6.26%	264.34
May	2.78	1.07%	16.07	6.16%	86.26
June	0.52	0.20%	6.50	2.49%	15.53
July	23.43	8.98%	43.09	16.51%	726.36
August	32.90	12.61%	47.98	47.96%	1,019.99
September	26.57	10.18%	54.70	20.96%	797.07
October	4.00	1.53%	27.57	10.56%	123.86
November	25.59	9.80%	50.45	19.33%	767.56
December	30.28	11.60%	81.43	31.20%	938.61
2023	18.07	6.92%	81.43	31.20%	6,593.69

^{3A}Treated water flow and flowrate data for Weca Well No.1 Pumphouse is based off the raw water flow and flowrate data for Well #1: PW1. 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 Weca Well No. 1 Pumphouse operated within the rated capacity specified in the MDWL (261 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 Weca Well No. 1 Pumphouse treatment subsystem can be found in Table 7. 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 Weca Well No. 1 Pumphouse.

Table 4. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for Well No. 2 Pumphouse^{4A} in 2023

Treated Water Flow - Well No. 2 Pumphouse ^{4A}					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	125.99	19.24%	177.81	27.15%	3,905.83
February	132.73	20.26%	177.15	27.05%	3,716.48
March	147.45	22.51%	244.80	37.37%	4,571.00
April	169.43	25.87%	216.73	33.09%	5,082.84
May	212.35	32.42%	315.90	48.23%	6,582.91
June	220.38	33.65%	366.36	55.93%	6,611.39
July	169.91	25.94%	243.66	37.20%	5,267.31
August	126.07	19.25%	229.04	37.97%	3,908.14
September	143.64	21.93%	236.76	36.15%	4,309.11
October	186.38	28.45%	271.21	41.41%	5,777.74
November	132.18	20.18%	225.92	34.49%	3,965.35
December	130.37	19.90%	175.52	26.80%	4,041.54
2023	158.19	24.15%	366.36	55.93%	57,739.64

^{4A}Treated water flow and flowrate data for Weca Well No.2 Pumphouse is based off the raw water flow and flowrate data for Well #2: PW2. 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 Weca Well No. 2 Pumphouse operated within the rated capacity specified in the MDWL (655 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 Weca Well No. 2 Pumphouse treatment subsystem can be found in Table 9. 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 Weca Well No. 2 Pumphouse.

Table 5. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for Well No. 3 (Loretto Heights) Pumphouse^{5A} in 2023

Treated Water Flow- Well No. 3 (Loretto Heights) Pumphouse^{5A}					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	0.18	0.13%	0.22	0.16%	0.35
February	0.00	0.00%	0.00	0.00%	0.00
March	0.00	0.00%	0.00	0.00%	0.00
April	0.00	0.00%	0.00	0.00%	0.00
May	0.00	0.00%	0.00	0.00%	0.00
June	0.00	0.00%	0.00	0.00%	0.00
July	0.00	0.00%	0.00	0.00%	0.00
August	0.00	0.00%	0.00	0.00%	0.00
September	0.00	0.00%	0.00	0.00%	0.00
October	0.00	0.00%	0.00	0.00%	0.00
November	0.00	0.00%	0.00	0.00%	0.00
December	0.00	0.00%	0.00	0.00%	0.00
2023	0.18	0.13%	0.22	0.16%	0.35

^{5A}Treated water flow and flowrate data for Loretto Heights Well No. 3 Pumphouse is based off the raw water flow and flowrate data for Well #3: PW1 Loretto Heights. 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.

Well No. 3 Pumphouse has been offline since September 2022. Any flows in 2023 were a result of flushing raw water to waste during maintenance exercises, no water from this well has been directed to the treatment or distribution system.

A review of flow information for the reporting period indicates that the Weca Well No. 3 (Loretto Heights) Pumphouse operated within the rated capacity specified in the MDWL (137 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 Loretto Well No. 3 Pumphouse treatment subsystem can be found in Table 11. 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 Loretto Well No. 3 Pumphouse.

2.2 Raw Water

Permit to Take Water Number (PTTW):	0033-C2YNBY
Allowable Maximum Raw Water Volume – Well #1: PW1	260.60 m ³ /day
Allowable Maximum Raw Water Flowrate– Well #1: PW1	180 L/min (3.0 L/sec)
Allowable Maximum Raw Water Volume – Well #2: PW2	655.2 m ³ /day
Allowable Maximum Raw Water Flowrate– Well #2: PW2	455 L/min (7.58 L/sec)
Allowable Maximum Raw Water Volume – Well #3: PW1 Loretto Heights	163.8 m ³ /day
Allowable Maximum Raw Water Flowrate– Well #3: PW1 Loretto Heights	114 L/min (1.90 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 6. Raw Water (Well #1: PW1) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #1: PW1					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	23.39	8.98%	30.82	11.83%	725.02
February	20.69	7.94%	24.94	9.57%	579.20
March	17.74	6.81%	27.23	10.45%	549.89
April	8.81	3.38%	16.34	6.27%	264.34
May	2.78	1.07%	16.07	6.17%	86.26
June	0.52	0.20%	6.50	2.49%	15.53
July	23.43	8.99%	43.09	16.53%	726.36
August	32.90	12.62%	47.98	18.41%	1,019.99
September	26.57	10.20%	54.70	20.99%	797.07
October	4.00	1.53%	27.57	10.58%	123.86
November	25.59	9.82%	50.45	19.36%	767.56
December	30.28	11.62%	81.43	31.25%	938.61
2023	18.07	6.93%	81.43	31.25%	6,593.69

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 #1: PW1 (260.60 m³/day).

Table 7. Raw Water (Well #1: PW1) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #1 (PW1)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	1.52	1.60
February	1.33	1.47
March	1.12	1.25
April	0.77	1.96
May	0.29	1.59
June	0.00	1.86
July	1.66	2.34
August	2.04	2.33
September	1.62	11.67 ^{7A}
October	2.00	15.83 ^{7B}
November	2.02	2.52
December	2.05	2.46
2023	1.63	15.83^{7A}

A review of flow information for the reporting period indicates that the system operated within the PTTW’s maximum allowable raw water flowrate for Well #1: PW1 (3.0 L/sec) with the exception of:

- ^{7A}September 7, 2023 – Flowrate exceedance due to annual flow meter calibrations
- ^{7B}October 3, 2023 – Flowrate exceedance due to well maintenance activities- the well was offline from September 25 to October 25, 2023 when a new flow meter was installed on the well.

Table 8. Raw Water (Well #2: PW2) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #2: PW2					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	125.99	19.23%	177.81	27.14%	3,905.83
February	132.73	20.26%	177.15	27.04%	3,716.48
March	147.45	22.50%	244.80	37.36%	4,571.00
April	169.43	25.86%	216.73	33.08%	5,082.84
May	212.35	32.41%	315.90	48.21%	6,582.91
June	220.38	33.64%	366.36	55.92%	6,611.39
July	169.91	25.93%	243.66	37.19%	5,267.31
August	126.07	19.24%	229.04	34.96%	3,908.14
September	143.64	21.92%	236.76	36.14%	4,309.11

Raw Water Flow – Well #2: PW2					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
October	186.38	28.45%	271.21	41.39%	5,777.74
November	132.18	20.17%	225.92	34.48%	3,965.35
December	130.37	19.90%	175.52	26.79%	4,041.54
2023	158.19	24.14%	366.36	55.92%	57,739.64

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: PW2 (655.2 m³/day).

Table 9. Raw Water (Well #2: PW2) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #2: PW2		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	6.83	8.41 ^{9A}
February	6.84	11.21 ^{9A}
March	6.95	11.43 ^{9A}
April	6.52	10.32 ^{9A}
May	6.95	11.86 ^{9A}
June	6.73	10.60 ^{9A}
July	6.54	18.46 ^{9A}
August	6.59	16.37 ^{9A}
September	6.68	25.00 ^{9A}
October	6.60	8.74 ^{9A}
November	6.64	20.65 ^{9A}
December	6.21	17.96 ^{9A}
2023	6.67	25.00^{9A}

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 Well #2: PW2 (7.58 L/sec). There were instances where the system operated outside of the PTTW's the maximum allowable raw water flowrate for short durations of time due to:

- ^{9A}Well pump start-ups or distribution system flushing activities, all daily averages were within the maximum allowable flow rate.

It should be noted that the systems average flowrate was within the PTTW's the maximum allowable raw water flowrate for Well #2: PW2.

Table 10. Raw Water (Well #3: PW1 Loretto Heights) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #3: PW1 Loretto Heights ^{10A}					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	0.18	0.13%	0.22	0.16%	0.35
February	0.00	0.00%	0.00	0.00%	0.00
March	0.00	0.00%	0.00	0.00%	0.00
April	0.00	0.00%	0.00	0.00%	0.00
May	0.00	0.00%	0.00	0.00%	0.00
June	0.00	0.00%	0.00	0.00%	0.00
July	0.00	0.00%	0.00	0.00%	0.00
August	0.00	0.00%	0.00	0.00%	0.00
September	0.00	0.00%	0.00	0.00%	0.00
October	0.00	0.00%	0.00	0.00%	0.00
November	0.00	0.00%	0.00	0.00%	0.00
December	0.00	0.00%	0.00	0.00%	0.00
2023	0.18	0.13%	0.22	0.16%	0.35

^{10A}Well No. 3 Pumphouse has been offline since September 2022. Any flows in 2023 were from flushing raw water to waste during maintenance exercises, no raw water was directed to the treatment or distribution system.

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 #3: PW1 Loretto Heights (163.8 m³/day).

Table 11. Raw Water (Well #3: PW1 Loretto Heights) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #3: PW1 Loretto Heights ^{11A}		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	0.03	0.27
February	0.00	0.00
March	0.00	0.00
April	0.00	0.00
May	0.00	0.00
June	0.00	0.00
July	0.00	0.00
August	0.00	0.00
September	0.00	0.00
October	0.00	0.00

Raw Water Flowrate – Well #3: PW1 Loretto Heights^{11A}		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
November	0.00	0.00
December	0.00	0.00
2023	0.03	0.27

^{11A} Well No. 3 Pumphouse has been offline since September 2022. Any flows in 2023 were from flushing raw water to waste during maintenance exercises, no raw water was directed to the treatment or distribution system.

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 Well #3: PW1 Loretto Heights (1.90 L/sec).