

**2023
SCHEDULE 22
SUMMARY
REPORT**

**WASAGA BEACH
DRINKING WATER SYSTEM**

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

Prepared for the Town of Wasaga Beach 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:	220002137
Drinking-Water System Name:	Wasaga Beach Drinking Water System
Drinking-Water System Owner:	The Corporation of the Town of Wasaga Beach
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 January 10, 2024 for the period covering November 24, 2022 to January 10, 2024. On February 23, 2024 the Inspection Report was received. March 5, 2024, 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
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 O.Reg 170/03, Section 7.2 (1)-Monitoring requirements	66 hours and 13 minutes	<ul style="list-style-type: none"> OCWA staff verified that the pre-chlorine analyzer remained operational throughout the duration OCWA verified that a low chlorine event on the pre-analyzer would have triggered a well lock out and alarm. Since the pre-chlorine analyzer was operational, no alarm was triggered.
Jenetta Pumphouse- Post-Chlorine Analyzer Calibration Failure (incomplete calibration) resulted in false post-chlorine residual readings from Friday June 9 to Monday June, 2023- analyzer was		

<p>placed in calibration mode and locked at 1.17 mg/L for the duration</p>		<ul style="list-style-type: none"> • OCWA verified that the distribution free chlorine residual analyzer was operational. • Since the post-chlorine analyzer monitors CT and since it was locked for the duration, CT could not be guaranteed, as a precaution an AWQI was reported for improper disinfection was reported (see 2023 Schedule 11 Annual Report for more details) • Additional training provided to staff on returning equipment back to normal operations following operational checks • Verbal and written notification of non-compliance reported to the MECP on June 12, 2023. No further actions required.
<p>Non-compliance with PTTW #8041-BFHJV2, Section 4.2-Monitoring well requirements</p> <p>Continuous monitoring data for monitoring well TW 1-92 was lost due to well probe failure.</p>	<p>December 4, 2023 to January 11, 2024</p>	<ul style="list-style-type: none"> • On December 4, 2023 OCWA verified that the current probe was not repairable and ordered a new probe for replacement. • On January 11, 2024, the well probe was replaced and programmed and is now recording data as required under the PTTW. • Verbal and written notification of non-compliance reported to the MECP on December 5, 2023. Follow-up notification of replacement provided January 11, 2024. No further actions required.

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Wasaga Beach 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. Annually, to ensure the flow measuring devices are within acceptable deviation limits, a third party performs these checks/verifications/calibrations. Wasaga Beach DWS, flow measuring devices were last calibrated by Indus Control on September 11, 2023.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	131-101 (Issue Number: 4)
Allowable Rated Capacity Powerline:	15,707.52 m ³ /day
Allowable Rated Capacity Jenetta:	15,707.52 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. Powerline Pumphouse Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023

Powerline Pumphouse- Treated Water Flow					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	3,682.74	23.45%	4,910.00	31.26%	114,165.00
February	3,666.29	23.34%	4,673.00	29.75%	102,656.00
March	3,315.61	21.11%	4,834.00	30.78%	102,784.00
April	3,796.93	24.17%	4,696.00	29.90%	113,908.00
May	5,652.58	29.10%	8419.00	53.60%	175,230.00
June	7,663.80	48.79%	9,774.00	62.22%	229,914.00
July	7,256.48	46.20%	8,778.00	55.88%	224,951.00
August	6,489.51	41.31%	7,927.00	50.46%	201,174.80
September	6,164.13	39.16%	8,870.00	56.47%	184,924.00
October	4,278.13	27.24%	6,242.00	39.74%	132,622.00
November	4,570.77	29.10%	4202.00	26.75%	107,123.00
December	3,620.00	23.05%	4,387.00	27.93%	112,220.00
2023	4,929.75	31.38%	9,774.00	62.22%	1,801,671.80

A review of flow information for the reporting period indicates that the Powerline Pumphouse operated within the rated capacity specified in the MDWL (15,707.52 m³/day) for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

Table 4. Jenetta Pumphouse Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023

Jenetta Pumphouse- Treated Water Flow					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	2,125.71	13.53%	4,646.00	29.58%	65,897.00
February	1,950.75	12.42%	2,706.00	17.23%	54,621.00
March	2,129.45	13.56%	3,417.00	21.75%	66,013.00
April	1,984.90	12.64%	2,529.00	16.10%	59,547.00
May	2,977.00	18.95%	4,732.00	30.12%	92,287.00
June	4,368.43	27.81%	7,122.00	45.34%	131,053.00
July	3,973.45	25.30%	5,383.00	34.27%	123,177.00
August	3,644.80	23.20%	4,763.00	30.32%	112,988.80
September	3,545.87	22.57%	5,915.00	37.66%	106,376.00
October	2,360.19	15.03%	3,286.00	20.92%	73,166.00
November	2,009.80	12.80%	2,411.00	15.35%	60,294.00
December	2,171.84	13.83%	2,889.00	18.39%	67,327.00
2023	2,770.18	17.64%	7,122.00	45.34%	1,012,746.80

Note: Treated water flow data is based on the raw water flow data.

A review of flow information for the reporting period indicates that the Jenetta Pumphouse operated within the rated capacity specified in the MDWL (15,707.52 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 6 and Table 8. 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):	8041-BFHJV2
Allowable Maximum Raw Water Volume - Well P-1:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-1:	3,636 L/min (60.6 L/sec)
Allowable Maximum Raw Water Volume - Well P-2:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-2:	3,636 L/min (60.6 L/sec)
Allowable Maximum Raw Water Volume - Well P-3:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-3:	3,636 L/min (60.6 L/sec)
Allowable Maximum Raw Water Volume - Well P-4:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-4:	3,636 L/min (60.6 L/sec)
Allowable Maximum Raw Water Volume - Well J-1:	5,235.84 m ³ /day

Allowable Maximum Raw Water Flowrate - Well J-1:	3,636 L/min (60.6 L/sec)
Allowable Maximum Raw Water Volume - Well J-2:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well J-2:	3,636 L/min (60.6 L/sec)
Allowable Maximum Raw Water Volume - Well J-3:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well J-3:	3,636 L/min (60.6 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. The total daily water taking from the Powerline Road wells (P-1, P-2, P-3, and P-4) shall not exceed 15,707.52 m³/day and the combined maximum daily water taking for all wells shall not exceed 31,415.04 m³/day.

Table 5. Powerline Raw Water (Combined) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Combined (P-2, P-3, P-4)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	3,675.52	23.40%	4,812.00	30.64%	113,941.00
February	3,659.61	23.30%	4,703.00	29.94%	102,469.00
March	3,247.81	20.68%	4,366.00	27.80%	100,682.00
April	3,808.20	24.24%	4,684.00	29.82%	114,246.00
May	5,610.29	35.72%	8,574.00	54.59%	173,919.00
June	7,641.20	48.65%	9,534.00	60.70%	229,236.00
July	7,255.29	46.19%	8,856.00	56.38%	224,914.00
August	6,467.87	41.18%	7,912.00	50.37%	200,504.00
September	6,150.43	39.16%	8,594.00	54.71%	184,513.00
October	4,253.39	27.08%	6,232.00	39.68%	131,855.00
November	3,539.13	22.53%	4,534.00	28.90%	106,174.00
December	3,607.65	22.97%	4,185.00	26.64%	111,837.00
2023	4,909.70	31.26%	9,534.00	60.70%	1,794,290.00

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume (15,707.52 m³/day) for Well P-1, Well P-2, Well P-3 and Well P-4 as well as the combined takings at the Powerline Well Field. As of 2021, Powerline Well P-1 has been fully decommissioned. Maximum allowable daily raw water volumes as based on wells P-2, P-3 and P-4

Table 6. Powerline Raw Water (Combined) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Combined (P-1, P-2, P-3, P-4)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	119.25	181.00
February	111.96	174.50
March	112.08	173.10
April	111.42	176.60
May	109.96	170.90
June	106.13	152.80
July	117.29	130.80
August	116.20	162.70
September	117.38	180.90
October	148.26	130.70
November	111.12	122.50
December	110.16	120.00
2023	116.02	181.00

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 P-1, Well P-2, Well P-3 and Well P-4 as well as the combined wells at the Powerline Well Field. The combined maximum allowable raw water flowrate for the Powerline Wells is 181.8 L/s. As of 2021, Powerline Well P-1 has been fully decommissioned. Maximum allowable daily flowrates are based on wells P-2, P-3 and P-4.

Table 7. Jenetta Raw Water (Combined) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Combined (J-1, J-2, J-3)					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	2,125.71	13.53%	4,646.00	17.23%	65,897.00
February	1,950.75	12.42%	2,706.00	17.23%	54,621.00
March	2,129.45	13.56%	3,417.00	21.75%	66,013.00
April	1,984.90	12.64%	2,529.00	16.10%	59,547.00
May	2,977.00	18.95%	4,732.00	30.13%	92,287.00
June	4,368.43	27.81%	7,122.00	45.34%	131,053.00
July	3,973.45	25.30%	5,383.00	34.27%	123,177.00
August	3,644.80	23.20%	4,763.00	30.32%	112,988.80
September	3,545.87	22.57%	5,915.00	37.66%	106,376.00
October	2,360.19	15.03%	3,286.00	20.92%	73,166.00
November	2,009.80	12.79%	2,411.00	15.35%	60,294.00

Raw Water Flow – Combined (J-1, J-2, J-3)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
December	2,171.84	13.83%	2,889.00	18.39%	67,327.00
2023	2,770.18	17.64%	7,122.00	45.34%	1,012,746.80

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 J-1, Well J-2 and Well J-3 as well as the combined takings at the Jenetta Well Field.

Table 8. Jenetta Raw Water (Combined) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Combined (J-1, J-2, J-3)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	61.26	122.00
February	60.08	118.10
March	60.48	71.30
April	60.27	70.70
May	60.19	72.70
June	64.16	121.90
July	62.05	123.10
August	59.34	120.00
September	62.21	159.00
October	59.72	128.60
November	60.85	117.80
December	60.92	117.80
2023	60.96	159.00

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 J-1, Well J-2 and Well J-3 as well as the combined takings at the Jenetta Well Field. The combined maximum allowable raw water flowrate for the Jenetta Wells is 181.8 L/s.

Table 9. Combined Raw Water (Powerline and Jenetta Wells) Monthly Average, Maximum Flow and Total Volume for 2023

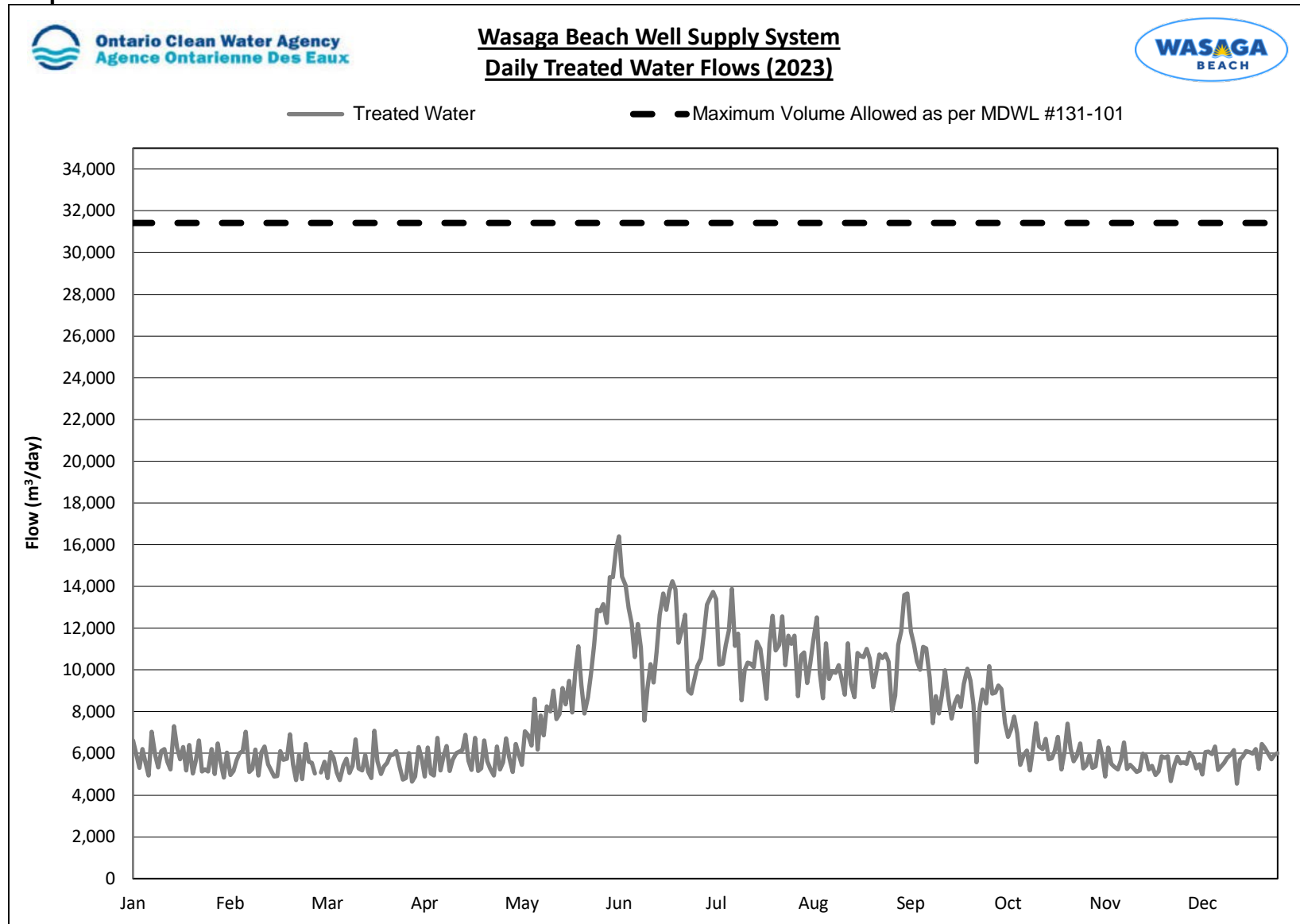
Raw Water Flow – All Wells (P-1, P-2, P-3, P-4, J-1, J-2, J-3)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	5,801.23	18.47%	7,196.00	22.06%	17,9838

Raw Water Flow – All Wells (P-1, P-2, P-3, P-4, J-1, J-2, J-3)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
February	5,610.36	17.86%	6,866.00	21.86%	157,090
March	5,377.26	17.12%	6,623.00	21.08%	166,695
April	5,793.10	18.44%	6,741.00	21.46%	173,793
May	8,587.29	27.33%	13,306.00	42.36%	266,206
June	12,009.63	38.23%	16,305.00	51.90%	360,289
July	11,228.74	35.74%	13,925.00	44.33%	348,091
August	10,112.67	32.19%	12,503.00	39.80%	313,493
September	9,696.30	30.87%	13,900.00	44.25%	290,889
October	6,613.58	21.05%	9,236.00	29.40%	205,021
November	5,548.93	17.66%	6,592.00	20.98%	166,468
December	5,779.48	18.40%	6,443.00	20.51%	179,164
2023	7,690.51	24.48%	16,305.00	51.90%	2,807,037

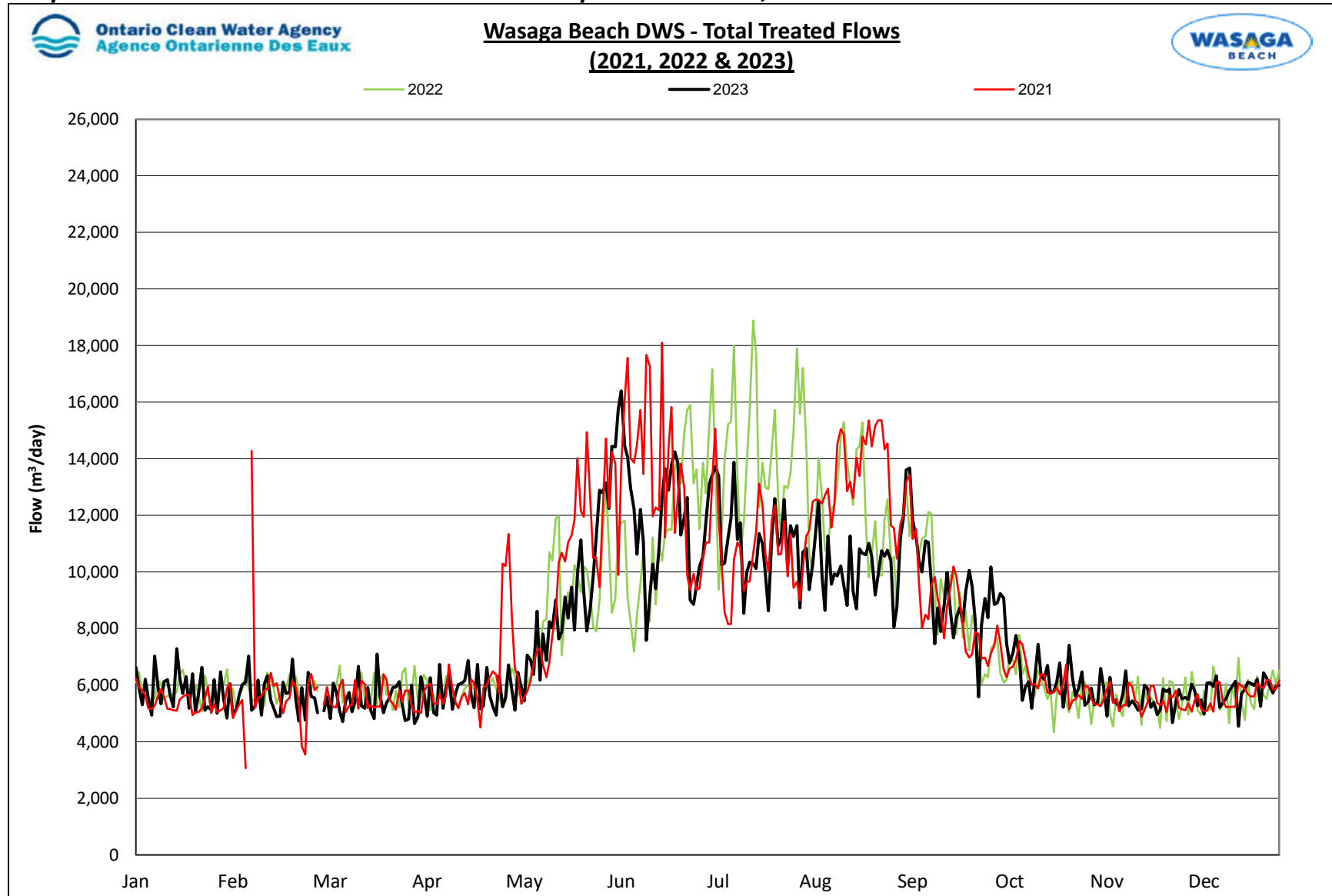
3. Annual Treated Water Flows and Quantity of Water Supplied

The following graphs (Graph 1 to 4) provide a visual representation of the combined total treated water flow data for the Wasaga Beach Drinking Water System. Graph 1 provides the annual total treated water flow data for 2023 compared to MDWL #131-101 maximum allowable volume. Graph 2 provides the total annual treated water flows in 2023, compared to 2021 and 2022. Graph 3 provides the annual total treated water flows for 2023, compared to 2007, the year in which the water metering program began in the Town of Wasaga Beach. Lastly, graph 4 provides a comparison of the annual total treated water flow data (m³) and the average daily and maximum and treated water flowrates (m³/day) from 2013 to 2023.

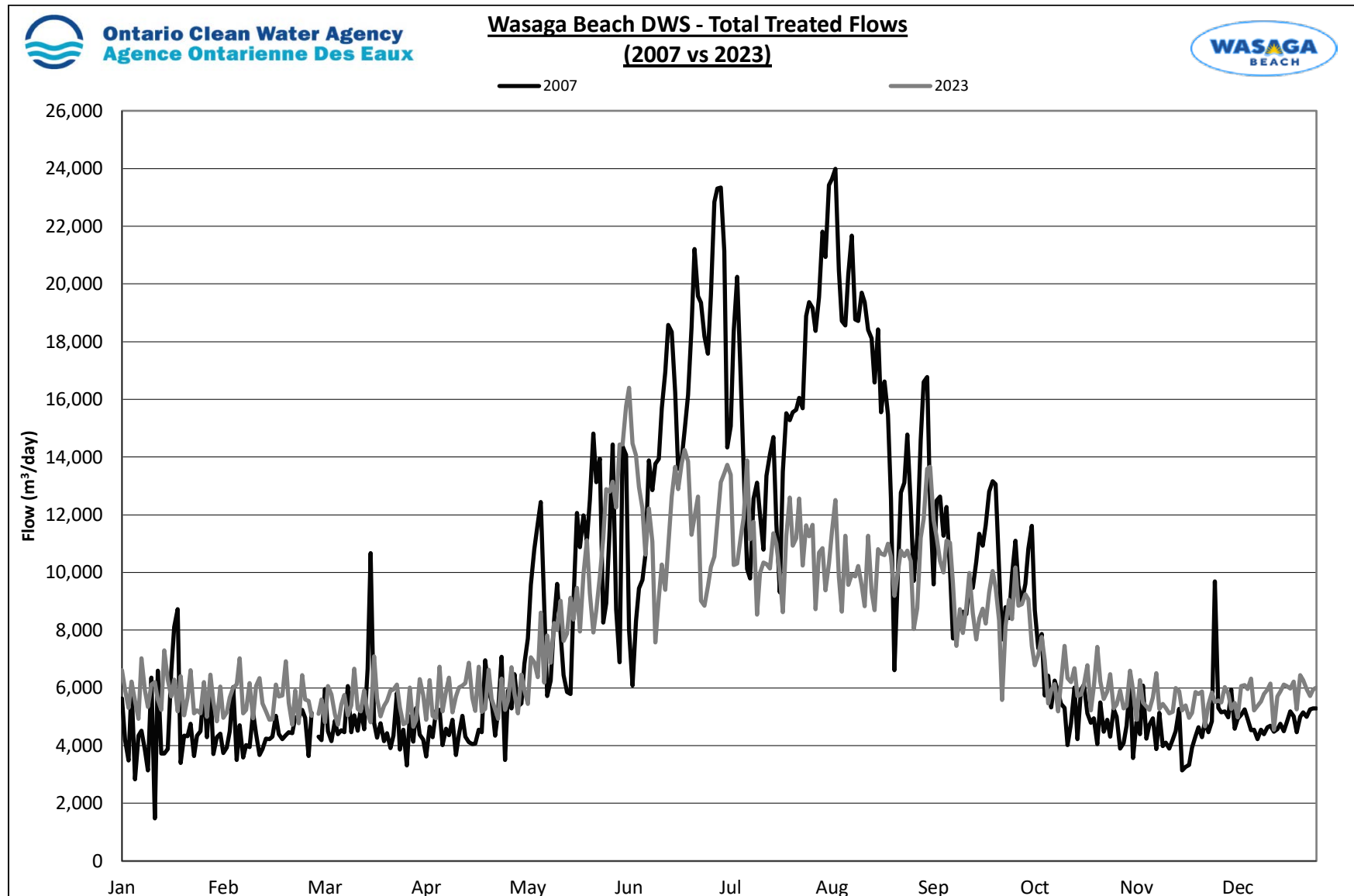
Graph 1. Annual Total Treated Water Flows for 2023



Graph 2. Annual Total Treated Water Flows Comparison of 2021, 2022 and 2023



Graph 3. Annual Total Treated Water Flows for 2023 Compared to 2007



Graph 4. Average Daily and Maximum Daily Treated Water Flows from 2013 to 2023

