

# 2023 SCHEDULE 22 SUMMARY REPORT

SHELBURNE  
DRINKING WATER  
SYSTEM



For the period of  
January 1<sup>st</sup>, 2023 to December 31<sup>st</sup>, 2023

Prepared for the Corporation of the Town of Shelburne by the Ontario Clean Water Agency



*A People Place, A Change of Pace*  
**SHELBURNE**  
ONTARIO, CANADA



**ONTARIO CLEAN WATER AGENCY**  
**AGENCE ONTARIENNE DES EAUX**

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:

<b>Drinking-Water System Number:</b>	220004965
<b>Drinking-Water System Name:</b>	Shelburne Drinking Water System
<b>Drinking-Water System Owner:</b>	The Corporation of the Town of Shelburne
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	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 April 20 & 26, 2023 for the period covering May 1, 2022 to April 15, 2023. On June 28, 2023 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 99.29% 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 10.1(3)</p> <p>Written notification was not provided to the Director in regards to a change in the system registration information within ten (10) days of the change.</p>	N/A	<ul style="list-style-type: none"> <li>Moving forward, relevant drinking water system information changes are expected to be provided to the Ministry within ten days of the change as required via submission of a Drinking Water System Profile Information form.</li> <li>DWIS profile was updated on May 3, 2023 as required.</li> <li>OCWA will follow the Work Management System (Maximo) work order to check and update DWIS profiles as needed.</li> </ul>

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
N/A	N/A	N/A

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

## 2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 20) 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

<b>Municipal Drinking Water License (MDWL):</b>	109-101 (Issue Number: 6)
<b>Allowable Rated Capacity PH1:</b>	2,261 m <sup>3</sup> /day
<b>Allowable Rated Capacity PH3:</b>	1,309 m <sup>3</sup> /day
<b>Allowable Rated Capacity PH5/6:</b>	1,987 m <sup>3</sup> /day
<b>Allowable Rated Capacity PH7/8:</b>	1,635 m <sup>3</sup> /day
<b>Allowable Flowrate into Treatment System:</b>	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 (Well PH 1) Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023<sup>3A</sup>**

Treated Water Flow – Well PH 1					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Maximum Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Total Volume (m <sup>3</sup> )
January	0.00	0.00%	0.00	0.00%	0.00
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

Treated Water Flow – Well PH 1					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Maximum Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Total Volume (m <sup>3</sup> )
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
<b>2023</b>	<b>0.00</b>	<b>0.00%</b>	<b>0.00</b>	<b>0.00%</b>	<b>0.00</b>

<sup>3A</sup>Pumphouse/Well PW1 was offline for the duration of 2023 and has been offline since January, 2020. The well is currently undergoing rehabilitation and testing to bring it back to its original flowrates.

**Table 4. Treated Water (Well PH 3) Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023<sup>4A</sup>**

Treated Water Flow – Well PH 3					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Maximum Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Total Volume (m <sup>3</sup> )
January	0.00	0.00%	0.00	0.00%	0.00
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
<b>2023</b>	<b>0.00</b>	<b>0.00%</b>	<b>0.00</b>	<b>0.00%</b>	<b>0.00</b>

<sup>4A</sup>Pumphouse/Well PH3 was offline for the duration of 2023 and has been offline since April, 2020. The well is currently undergoing upgrades with commissioning scheduled for 2024.

**Table 5. Treated Water (Well PH 5/6) Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023**

Treated Water Flow – Well PH 5/6					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Maximum Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Total Volume (m <sup>3</sup> )
January	734.84	36.98%	1027.52	51.71%	22779.97
February	739.57	37.22%	815.67	41.05%	20707.87
March	744.39	37.46%	821.36	41.34%	23076.18
April	783.19	39.42%	1027.61	51.72%	23495.68
May	870.57	43.81%	1027.53	51.71%	26987.73
June	955.84	48.10%	1027.61	51.72%	28675.13
July	802.78	40.40%	1027.54	51.71%	24886.06
August	694.82	34.97%	845.36	42.54%	21539.45
September	717.63	36.12%	1027.52	51.71%	21528.98
October	685.62	34.51%	1027.60	51.72%	21254.11
November	726.41	36.56%	1027.53	51.71%	21792.44
December	725.71	36.52%	1027.61	51.72%	22496.92
<b>2023</b>	<b>764.99</b>	<b>38.50%</b>	<b>1027.61</b>	<b>51.72%</b>	<b>279220.52</b>

<sup>5A</sup>Treated water flow and flowrate data for Well PH 5/6 is based off the raw water flow and flowrate data from each well and then combined. There is only one set of pumps responsible for the raw water taking for each well, water that flows into the treatment system and water that flows from the treatment system into the distribution system

**Table 6. Treated Water (Well PH 7/8) Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023**

Treated Water Flow – Well PH 7/8					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Maximum Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Total Volume (m <sup>3</sup> )
January	1293.72	79.13%	1553.56	95.02%	40105.42
February	1302.59	79.67%	1553.46	95.01%	36472.46
March	1272.26	77.81%	1524.41	93.24%	39440.12
April	1415.16	86.55%	2402.75 <sup>6A</sup>	146.96% <sup>6A</sup>	42454.92
May	1440.03	88.08%	1553.91	95.04%	44641.07
June	1532.30	93.72%	1554.98	95.11%	45968.97
July	1456.44	89.08%	1554.68	95.09%	45149.60
August	1397.08	85.45%	1554.45	95.07%	43309.60
September	1480.67	90.56%	1554.27	95.06%	44420.03
October	1399.09	85.57%	1554.94	95.10%	43371.83
November	1404.93	85.93%	1554.84	95.10%	42147.84
December	1399.43	85.59%	1554.60	95.08%	43382.34

<b>Treated Water Flow – Well PH 7/8</b>					
<b>Timeframe</b>	<b>Average Flow (m<sup>3</sup>/day)</b>	<b>Percent of Rated Capacity</b>	<b>Maximum Flow (m<sup>3</sup>/day)</b>	<b>Percent of Rated Capacity</b>	<b>Total Volume (m<sup>3</sup>)</b>
<b>2023</b>	<b>1399.63</b>	<b>85.60%</b>	<b>2402.75</b>	<b>146.96%<sup>6A</sup></b>	<b>510864.19</b>

<sup>6A</sup>Treated water maximum daily flow rate exceedance was a result of filling the South Water Tower-Permission Branch granted temporary relief to operate outside of the maximum daily allowance on April 23, 2023.

Treated water flow and flowrate data for Well PH 7/8 is based off the raw water flow and flowrate data from each well and then combined. There is only one set of pumps responsible for the raw water taking for each well, 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, 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 subsystem(s) can be found in Table 8, Table 10, Table 12, Table 14, Table 16 and Table 18. 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

<b>Permit to Take Water Number (PTTW):</b>	P-300-1082818689
<b>Allowable Maximum Raw Water Volume - Well PW1:</b>	1,642.00 m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Flowrate - Well PW1:</b>	1,140 L/min (19.00 L/sec)
<b>Allowable Maximum Volume of Raw Water - Well PW3:</b>	1,309.00 m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Flowrate – Well PW3:</b>	909 L/min (15.15 L/sec)
<b>Allowable Maximum Volume of Raw Water - Well PW5:</b>	1,964.00m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Flowrate – Well PW5:</b>	1,364 L/min (22.73 L/sec)
<b>Allowable Maximum Volume of Raw Water - Well PW6:</b>	1,964.00 m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Flowrate – Well PW6:</b>	1,364 L/min (22.73 L/sec)
<b>Allowable Maximum Volume of Raw Water - Well PW7:</b>	1,635.00 m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Flowrate – Well PW7:</b>	1,135 L/min (18.92 L/sec)
<b>Allowable Maximum Volume of Raw Water - Well PW8:</b>	1,635.00 m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Flowrate – Well PW8:</b>	1,135 L/min (18.92 L/sec)
<b>Allowable Maximum Raw Water Volume for any Combination of Wells PW7 and PW8:</b>	1,635.00 m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Volume for any Combination of Wells:</b>	6,550.00 m <sup>3</sup> /day

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 7. Raw Water (Well PW1) Monthly Average, Maximum Flow and Total Volume for 2023<sup>7A</sup>**

Raw Water Flow – Well PW1					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Maximum Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Total Volume (m <sup>3</sup> )
January	0.00	0.00%	0.00	0.00%	0.00
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	247.00	15.04%	249.00	15.16%	494.00
July	912.00	55.54%	1221.00	74.36%	3648.00
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
<b>2023</b>	<b>579.50</b>	<b>35.29%</b>	<b>1221.00</b>	<b>74.36%</b>	<b>4142.00</b>

<sup>7A</sup>Pumphouse/Well PW1 was offline for the duration of 2023 and has been offline since January, 2020. The well is currently undergoing rehabilitation and testing to bring it back to its original flowrates. June and July flow values were for contact tank flushing and 72 hour pump testing by SBA Engineering. During these times raw water was ran to waste, distribution valve was closed during this period so no water was directed to the distribution system.

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily raw water volume listed in PTTW P-300-1082818689 for Well PW1.

**Table 8. Raw Water (Well PW1) Annual and Monthly Average and Maximum Flowrates for 2023<sup>8A</sup>**

Raw Water Flowrate – Well PW1		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	0.00	0.00
February	0.00	0.00
March	0.00	0.00
April	0.00	0.00
May	0.00	0.00
June	17.17	17.39
July	14.94	16.00
August	0.00	0.00

<b>Raw Water Flowrate – Well PW1</b>		
<b>Timeframe</b>	<b>Average Flowrate (L/sec)</b>	<b>Maximum Flowrate (L/sec)</b>
September	0.00	0.00
October	0.00	0.00
November	0.00	0.00
December	0.00	0.00
<b>2023</b>	<b>15.68</b>	<b>17.39</b>

<sup>8A</sup>Pumphouse/Well PW1 was offline for the duration of 2023 and has been offline since January, 2020. The well is currently undergoing rehabilitation and testing to bring it back to its original flowrates. June and July flow values were for contact tank flushing and 72 hour pump testing by SBA Engineering. During these times raw water was ran to waste, distribution valve was closed during this period so no water was directed to the distribution system.

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW P-300-1082818689 for Well PW1.

**Table 9. Raw Water (Well PW3) Monthly Average, Maximum Flow and Total Volume for 2023<sup>9A</sup>**

<b>Raw Water Flow – Well PW3</b>					
<b>Timeframe</b>	<b>Average Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Maximum Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Total Volume (m<sup>3</sup>)</b>
January	0.00	0.00%	0.00	0.00%	0.00
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
<b>2023</b>	<b>0.00</b>	<b>0.00%</b>	<b>0.00</b>	<b>0.00%</b>	<b>0.00</b>

<sup>9A</sup>Pumphouse/Well PH3 was offline for the duration of 2023 and has been offline since April, 2020. The well is currently undergoing upgrades with commissioning scheduled for 2024.

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily raw water volume listed in PTTW P-300-1082818689 for Well PW3.

**Table 10. Raw Water (Well PW3) Annual and Monthly Average and Maximum Flowrates for 2023<sup>10A</sup>**

Raw Water Flowrate – Well PW3		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	0.00	0.00
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
November	0.00	0.00
December	0.00	0.00
<b>2023</b>	<b>0.00</b>	<b>0.00</b>

<sup>10A</sup> Pumphouse/Well PH3 was offline for the duration of 2023 and has been offline since April, 2020. The well is currently undergoing upgrades with commissioning scheduled for 2024.

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW P-300-1082818689 for Well PW3.

**Table 11. Raw Water (Well PW5) Monthly Average, Maximum Flow and Total Volume for 2023**

Raw Water Flow – Well PW5					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Maximum Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Total Volume (m <sup>3</sup> )
January	328.41	16.72%	708.05	36.05%	10180.71
February	360.59	18.36%	723.93	36.86%	10096.59
March	369.86	18.83%	772.49	39.33%	11465.60
April	294.05	14.97%	1012.14	51.53%	8821.54
May	364.54	18.56%	1027.52	52.32%	11300.82
June	546.92	27.85%	1027.61	52.32%	16407.51
July	492.15	25.06%	1027.54	52.32%	15256.76
August	302.64	15.41%	766.66	39.04%	9381.97
September	391.61	19.94%	1027.52	52.32%	11748.26
October	346.29	17.63%	1027.53	52.32%	10735.00
November	393.26	20.02%	954.05	48.58%	11797.86
December	352.97	17.97%	1003.37	51.09%	10941.93

<b>Raw Water Flow – Well PW5</b>					
<b>Timeframe</b>	<b>Average Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Maximum Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Total Volume (m<sup>3</sup>)</b>
<b>2023</b>	<b>378.61</b>	<b>19.28%</b>	<b>1027.61</b>	<b>52.32%</b>	<b>138134.55</b>

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily raw water volume listed in PTTW P-300-1082818689 for Well PW5.

**Table 12. Raw Water (Well PW5) Annual and Monthly Average and Maximum Flowrates for 2023**

<b>Raw Water Flowrate – Well PW5</b>		
<b>Timeframe</b>	<b>Average Flowrate (L/sec)</b>	<b>Maximum Flowrate (L/sec)</b>
January	12.13	14.87
February	11.98	12.09
March	12.03	12.49
April	11.99	18.61
May	12.21	12.89
June	12.02	12.51
July	12.21	17.79
August	12.44	17.70
September	12.05	12.66
October	12.02	13.22
November	12.08	13.40
December	11.57	12.70
<b>2023</b>	<b>12.06</b>	<b>18.61</b>

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW P-300-1082818689 for Well PW5.

**Table 13. Raw Water (Well PW6) Monthly Average, Maximum Flow and Total Volume for 2023**

<b>Raw Water Flow – Well PW6</b>					
<b>Timeframe</b>	<b>Average Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Maximum Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Total Volume (m<sup>3</sup>)</b>
January	406.43	20.69%	1027.52	52.32%	12599.27
February	378.97	19.30%	743.63	37.86%	10611.28
March	374.53	19.07%	767.19	39.06%	11610.58
April	489.14	24.91%	1027.61	52.32%	14674.14
May	506.03	25.77%	1027.53	52.32%	15686.91

<b>Raw Water Flow – Well PW6</b>					
<b>Timeframe</b>	<b>Average Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Maximum Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume</b>	<b>Total Volume (m<sup>3</sup>)</b>
June	408.92	20.82%	1027.60	52.32%	12267.62
July	310.62	15.82%	753.46	38.36%	9629.30
August	392.18	19.97%	792.72	40.36%	12157.48
September	326.02	16.60%	713.32	36.32%	9780.72
October	339.33	17.28%	1027.60	52.32%	10519.11
November	333.15	16.96%	1027.53	52.32%	9994.58
December	372.74	18.98%	1027.61	52.32%	11554.98
<b>2023</b>	<b>386.51</b>	<b>19.68%</b>	<b>1027.61</b>	<b>52.32%</b>	<b>141085.97</b>

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily raw water volume listed in PTTW P-300-1082818689 for Well PW6.

**Table 14. Raw Water (Well PW6) Annual and Monthly Average and Maximum Flowrates for 2023**

<b>Raw Water Flowrate – Well PW6</b>		
<b>Timeframe</b>	<b>Average Flowrate (L/sec)</b>	<b>Maximum Flowrate (L/sec)</b>
January	11.99	12.16
February	11.96	12.07
March	11.97	12.26
April	12.08	13.67
May	11.99	12.14
June	11.99	12.32
July	11.98	12.25
August	11.99	12.27
September	11.99	12.05
October	11.98	12.22
November	11.96	12.02
December	11.97	12.01
<b>2023</b>	<b>11.99</b>	<b>13.37</b>

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW P-300-1082818689 for Well PW6.

**Table 15. Raw Water (Well PW7) Monthly Average, Maximum Flow and Total Volume for 2023**

Raw Water Flow – Well PW7					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Maximum Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Total Volume (m <sup>3</sup> )
January	613.42	37.52%	1553.56	95.02%	19016.01
February	559.70	34.23%	1286.37	78.68%	15671.50
March	616.31	37.69%	1223.90	74.86%	19105.55
April <sup>15A</sup>	706.49	43.21%	1547.41	94.64%	21194.75
May	769.48	47.06%	1553.51	95.02%	23853.94
June	846.99	51.80%	1553.47	95.01%	25409.56
July	688.21	42.09%	1553.54	95.02%	21334.40
August	659.96	40.36%	1553.48	95.01%	20458.61
September	874.38	53.48%	1553.58	95.02%	26231.36
October	792.21	48.45%	1553.53	95.02%	24558.48
November	793.93	48.56%	1553.43	95.01%	23817.94
December	786.00	48.07%	1553.49	95.01%	24365.92
<b>2023</b>	<b>725.59</b>	<b>44.38%</b>	<b>1553.58</b>	<b>95.02%</b>	<b>265018.02</b>

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily raw water volume listed in PTTW P-300-1082818689 for Well PW7.

**Table 16. Raw Water (Well PW7) Annual and Monthly Average and Maximum Flowrates for 2023**

Raw Water Flowrate – Well PW7		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	18.15	18.24
February	18.16	18.23
March	18.15	18.36
April	18.17	19.09 <sup>16A</sup>
May	18.18	18.30
June	18.15	18.26
July <sup>16B</sup>	18.17	18.36
August <sup>16C</sup>	18.17	18.41
September	18.16	18.31
October	18.18	18.69
November	18.13	18.22
December	18.10	18.21
<b>2023</b>	<b>18.15</b>	<b>19.09<sup>16A</sup></b>

<sup>16A</sup>Permission Branch granted temporary relief while filling the South Water Tower on April 23, 2023.

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW P-300-1082818689 for Well PW7 with the exception of:

- <sup>16B</sup>July 19, 2023 maximum flow rate was exceeded (19.39 L/sec) due to power bump in area, true maximum flow rate 18.02 L/sec
- <sup>16C</sup>August 3, 2023 maximum flow rate was exceeded (21.95 L/sec) due to power bump in area, true maximum flow rate was 18.03 L/sec

**Table 17. Raw Water (Well PW8) Monthly Average, Maximum Flow and Total Volume for 2023**

Raw Water Flow – Well PW8					
Timeframe	Average Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Maximum Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Total Volume (m <sup>3</sup> )
January	680.30	41.61%	1553.40	95.01%	21089.41
February	742.89	45.44%	1553.46	95.01%	20800.96
March	655.95	40.12%	1304.14	79.76%	20334.57
April <sup>17A</sup>	708.67	43.34%	1553.53	95.02%	21260.17
May	670.55	41.01%	1553.42	95.01%	20787.13
June	685.31	41.92%	1553.42	95.01%	20559.41
July	768.23	46.99%	1553.46	95.01%	23815.20
August	737.13	45.08%	1553.43	95.01%	22850.99
September	606.29	37.08%	1553.42	95.01%	18188.67
October	606.88	37.12%	1553.53	95.02%	18813.35
November	611.00	37.37%	1553.44	95.01%	18329.89
December	613.43	37.52%	1553.54	95.02%	19016.43
<b>2023</b>	<b>673.89</b>	<b>41.22%</b>	<b>1553.54</b>	<b>95.02%</b>	<b>245846.17</b>

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily raw water volume listed in PTTW P-300-1082818689 for Well PW8.

**Table 18. Raw Water (Well PW8) Annual and Monthly Average and Maximum Flowrates for 2023**

Raw Water Flowrate – Well PW8		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	18.15	18.29
February	18.15	18.23
March	18.15	18.31
April	18.04	19.69 <sup>18A</sup>
May	18.16	18.34
June	17.69	18.18

<b>Raw Water Flowrate – Well PW8</b>		
<b>Timeframe</b>	<b>Average Flowrate (L/sec)</b>	<b>Maximum Flowrate (L/sec)</b>
July	18.15	18.26
August	18.15	18.54
September	18.15	18.25
October	18.17	18.66
November	18.15	18.23
December	18.15	18.24
<b>2023</b>	<b>18.11</b>	<b>19.69<sup>18A</sup></b>

<sup>18A</sup>Permission Branch granted temporary relief while filling the South Water Tower on April 23, 2023.

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW P-300-1082818689 for Well PW8.

**Table 19. Raw Water Monthly Average, Maximum Flow and Total Volume of the Combination of Well 7 and Well 8 (Well PW7 and Well PW8) for 2023<sup>19A</sup>**

<b>Raw Water Flow – Wells 7 and Well 8 (Well PW7, Well PW8)</b>					
<b>Timeframe</b>	<b>Average Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume<sup>19A</sup></b>	<b>Maximum Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume<sup>19A</sup></b>	<b>Total Volume (m<sup>3</sup>)</b>
January	1293.72	79.13%	1553.56	95.02%	40105.42
February	1302.59	79.67%	1553.46	95.01%	36472.46
March	1272.26	77.81%	1524.41	93.24%	39440.12
April	1415.16	86.55%	2402.75 <sup>19B</sup>	146.96% <sup>19B</sup>	42454.92
May	1440.03	88.08%	1553.91	95.04%	44641.07
June	1532.30	93.72%	1554.98	95.11%	45968.97
July	1456.44	89.08%	1554.68	95.09%	45149.60
August	1397.08	85.45%	1554.45	95.07%	43309.60
September	1480.67	90.56%	1554.27	95.06%	44420.03
October	1399.09	85.57%	1554.94	95.10%	43371.83
November	1404.93	85.93%	1554.84	95.10%	42147.83
December	1399.43	85.59%	1554.6	95.08%	43382.35
<b>2023</b>	<b>1399.63</b>	<b>85.60%</b>	<b>2402.75</b>	<b>146.96%</b>	<b>510864.19</b>

<sup>19A</sup>Based on an allowable volume of 1,635,000 m<sup>3</sup>/day as stipulated in PTTW P-300-1082818689 for the period of January 1, 2023 to December 31, 2023

<sup>19B</sup> Permission Branch granted temporary relief while filling the South Water Tower on April 23, 2023.

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily taking of water listed in PTTW P-300-1082818689 for the combination of well PW7 and well PW8.

**Table 20. Raw Water Monthly Average, Maximum Flow and Total Volume of any Combination of Wells (Well PW1, Well PW3, Well PW 5, Well PW 6, Well PW7 and Well PW8) for 2023<sup>20A</sup>**

<b>Raw Water Flow – Any Combination of Wells (Well PW1, Well PW3, Well PW 5, Well PW 6, Well PW7, Well PW8)</b>					
<b>Timeframe</b>	<b>Average Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume<sup>20A</sup></b>	<b>Maximum Flow (m<sup>3</sup>/day)</b>	<b>Percent of Allowable Volume<sup>20A</sup></b>	<b>Total Volume (m<sup>3</sup>)</b>
January	405.71	6.19%	1553.56	23.72%	62885.40
February	408.43	6.24%	1553.46	23.72%	57180.33
March	403.33	6.16%	1304.14	19.91%	62516.30
April	439.67	6.71%	1553.53	23.72%	65950.60
May	462.12	7.06%	1553.51	23.72%	71628.80
June	547.03	8.35%	1553.47	23.72%	75138.10
July	634.24	9.68%	1553.54	23.72%	73683.66
August	418.38	6.39%	1553.48	23.72%	64849.05
September	439.66	6.71%	1553.58	23.72%	65949.01
October	416.94	6.37%	1553.53	23.72%	64625.94
November	426.27	6.51%	1553.44	23.72%	63940.27
December	425.03	6.49%	1553.54	23.72%	65879.26
<b>2023</b>	<b>548.82</b>	<b>8.38%</b>	<b>1553.58</b>	<b>23.72%</b>	<b>794226.70</b>

<sup>20A</sup>Based on an allowable volume of 6,550.000 m<sup>3</sup>/day as stipulated in PTTW P-300-1082818689 for the period of January 1, 2023 to December 31, 2023

A review of flow information for the reporting period indicates that the system operated within the maximum allowable daily taking of water listed in PTTW P-300-1082818689 for any combination of wells.