

## Appendix II

### 2023 Water Flowrates in Ottawa's Municipal Water Systems

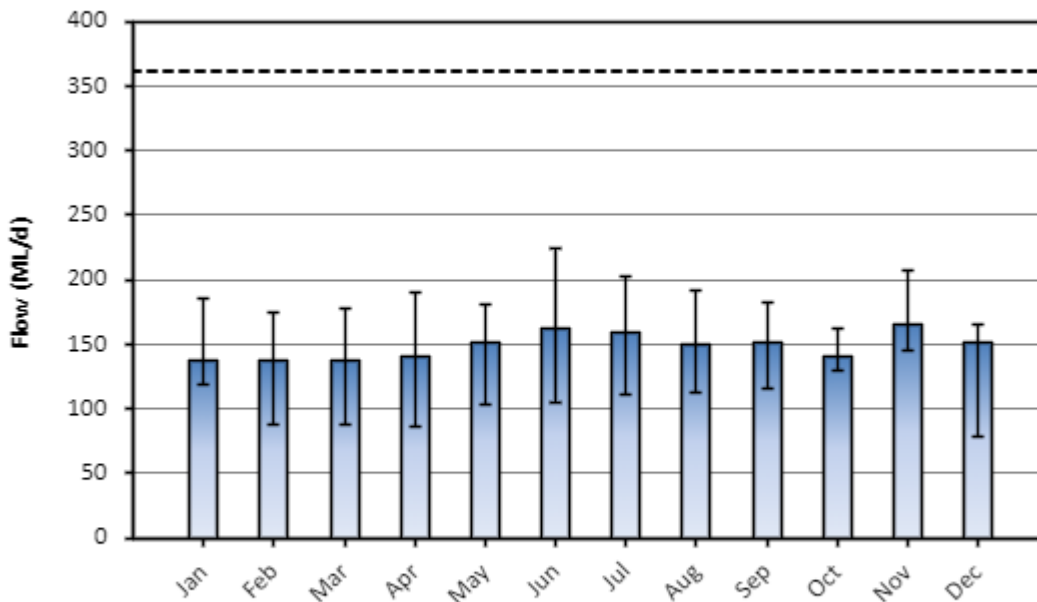
This supporting document reports on the amount of water supplied during the period of January 1 to December 31, 2023. The flowrates are shown in the tables and graphs that follow for each of the eight municipal water systems. Average, minimum, and maximum daily flows (by month) are shown in comparison to the rated capacity for each water system. Seasonal water use patterns can be seen in the graphs, with higher usage typically occurring during summer months.

#### Britannia WPP – Annual Water Flow Rates for 2023

The Britannia Water Purification Plant treated and distributed an average of 148.6 Million Liters per day (ML/d), which represents 41 per cent of the approved plant capacity of 360 ML/d. The daily flow rates ranged from a minimum of 78.6 ML/d to a maximum of 223.8 ML/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

**2023 Britannia Water Production by month**



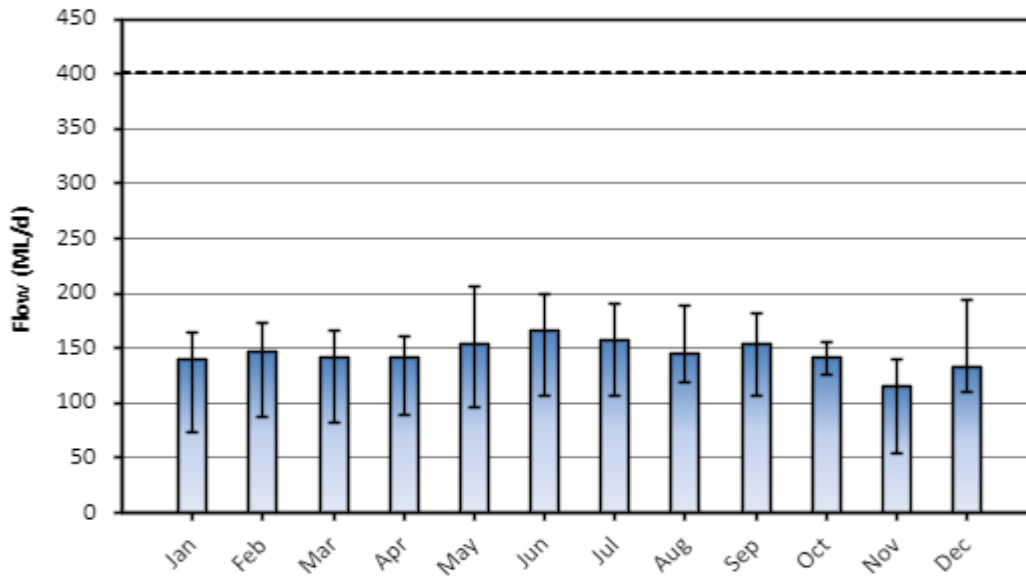
<b>Month</b>	<b>Average Daily Flow Rate (ML/d)</b>	<b>Minimum Daily Flow Rate (ML/d)</b>	<b>Maximum Daily Flow Rate (ML/d)</b>
January	137.1	118.9	185.4
February	136.8	88.1	175.1
March	137.1	88.3	177.7
April	140.1	87.0	190.2
May	151.3	103.0	181.0
June	162.3	104.3	223.8
July	159.0	111.5	202.7
August	150.1	112.9	192.5
September	152.1	115.1	181.9
October	140.3	129.7	162.3
November	164.8	145.1	207.6
December	151.8	78.6	165.3
<b>Year End</b>	<b>148.6</b> (Average)	<b>78.6</b> (Min. Day)	<b>223.8</b> (Max. Day)

**Lemieux Island WPP – Annual Water Flow Rates for 2023**

The Lemieux Island Water Purification Plant treated and distributed an average of 144.7 Million Liters per day (ML/d), which represents 36 per cent of the approved plant capacity of 400 ML/d. The daily flow rates ranged from a minimum of 54.5 ML/d to a maximum of 205.6 ML/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

## 2023 Lemieux Island Water Production by month



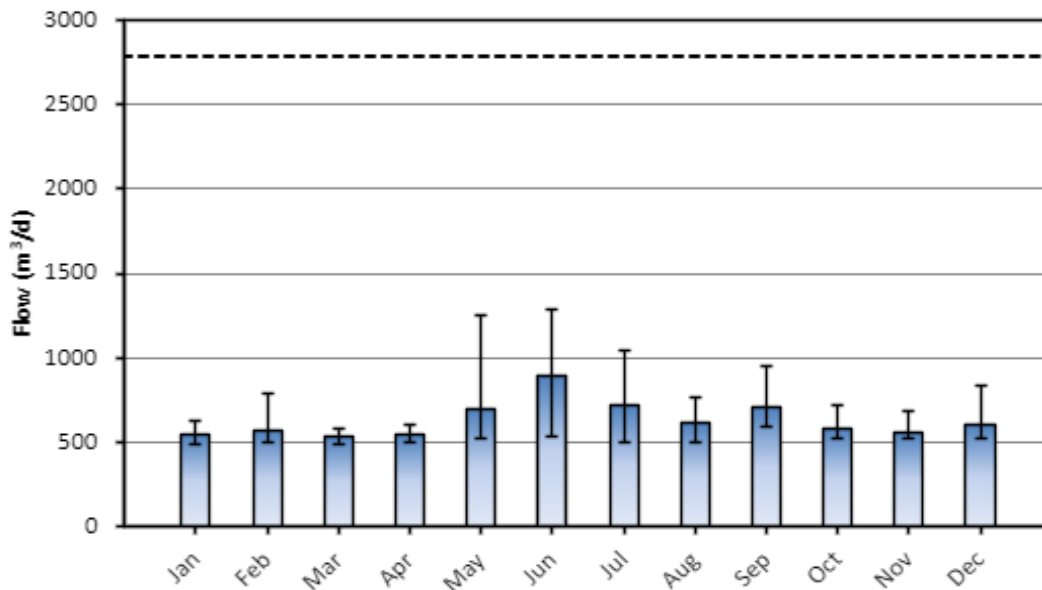
Month	Average Daily Flow Rate (ML/d)	Minimum Daily Flow Rate (ML/d)	Maximum Daily Flow Rate (ML/d)
January	140.2	73.0	163.5
February	145.9	86.7	173.0
March	141.2	81.7	165.7
April	141.7	88.7	161.2
May	153.7	95.5	205.6
June	165.7	106.1	198.6
July	156.9	106.1	189.6
August	145.6	118.2	188.3
September	154.2	106.5	181.7
October	141.5	124.9	155.7
November	115.9	54.5	139.8
December	133.3	110.3	193.1
<b>Year End</b>	<b>144.7</b> (Average)	<b>54.5</b> (Min. Day)	<b>205.6</b> (Max. Day)

## Carp Well System – Annual Water Flow Rates for 2023

The Carp Well System treated and distributed an average of 632.8 m<sup>3</sup>/d, which represents 23 per cent of the approved plant capacity of 2,782 m<sup>3</sup>/d. The daily flow rates ranged from a minimum of 484.0 m<sup>3</sup>/d to a maximum of 1286.7 m<sup>3</sup>/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

### 2023 Carp Water Production by month



Month	Average Daily Flow Rate (m <sup>3</sup> /d)	Minimum Daily Flow Rate (m <sup>3</sup> /d)	Maximum Daily Flow Rate (m <sup>3</sup> /d)
January	551.5	490.6	624.5
February	568.9	503.6	785.9
March	533.8	484.0	577.0
April	546.2	495.9	605.3
May	697.3	518.1	1255.2
June	895.7	529.3	1286.7
July	722.2	500.9	1048.6
August	618.6	504.4	760.7
September	711.0	591.7	955.4

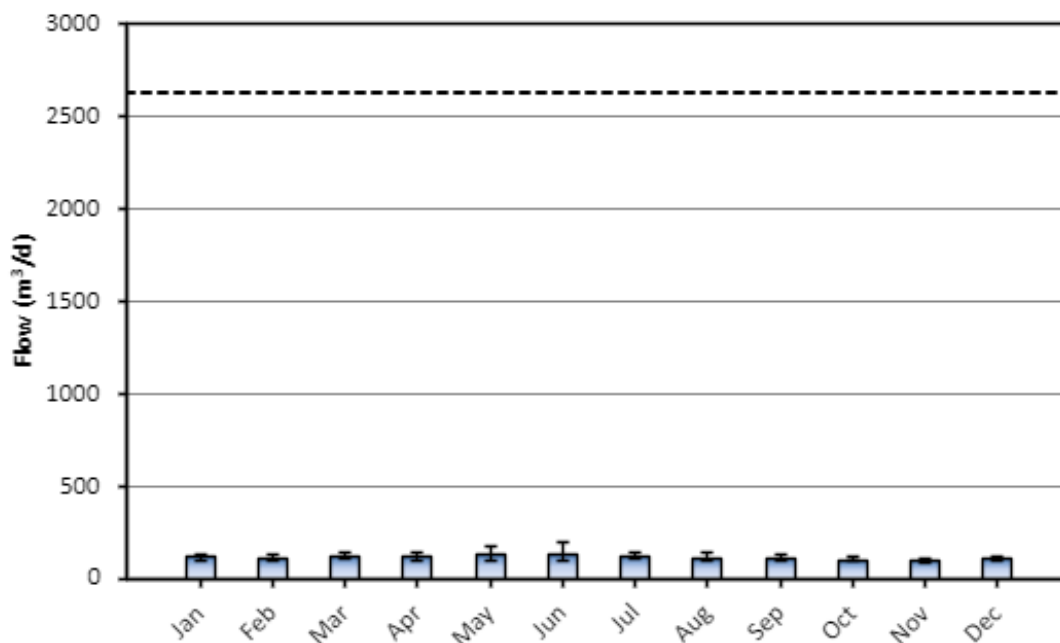
October	576.9	523.3	716.9
November	563.5	518.2	681.7
December	608.4	521.9	834.6
<b>Year End</b>	<b>632.8</b> (Average)	<b>484.0</b> (Min. Day)	<b>1286.7</b> (Max. Day)

### Kings Park Well System – Annual Water Flow Rates for 2023

The Kings Park Well System (Richmond) treated and distributed an average of 112.5 m<sup>3</sup>/d, which represents 4 per cent of the approved plant capacity of 2620 m<sup>3</sup>/d. The daily flow rates ranged from a minimum of 87 m<sup>3</sup>/d to a maximum of 196 m<sup>3</sup>/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

### 2023 Kings Park Water Production by month



Month	Average Daily Flow Rate (m <sup>3</sup> /d)	Minimum Daily Flow Rate (m <sup>3</sup> /d)	Maximum Daily Flow Rate (m <sup>3</sup> /d)
January	113.6	101.4	130.6
February	110.7	101.8	124.6

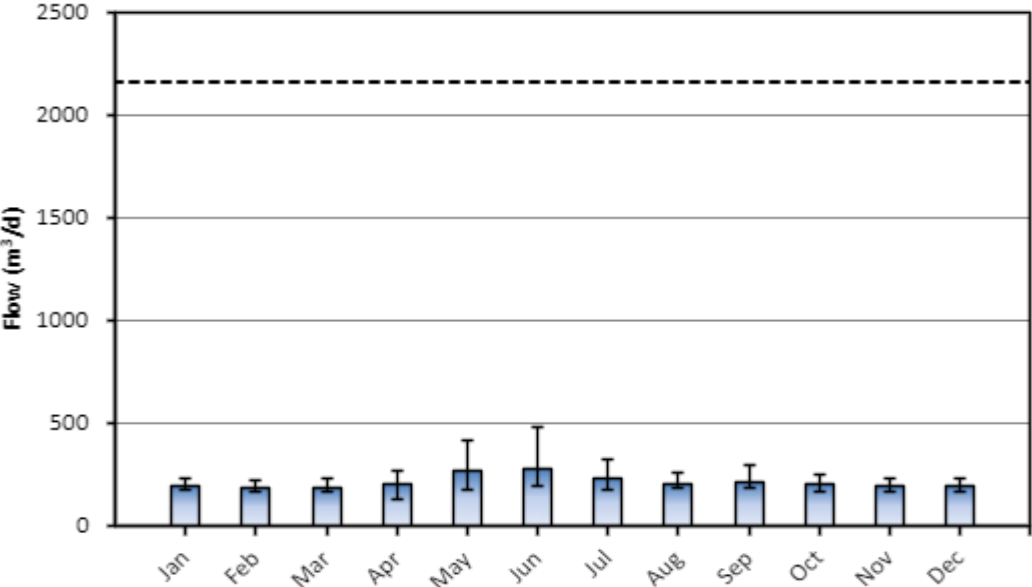
March	116.8	103.9	136.1
April	113.4	94.2	138.4
May	129.5	97.3	175.3
June	126.0	96.1	196.2
July	118.2	102.4	136.8
August	111.3	96.1	140.6
September	106.5	92.5	125.6
October	101.2	91.3	115.6
November	98.5	87.1	111.9
December	104.5	96.2	118.5
<b>Year End</b>	<b>112.5</b> (Average)	<b>87.1</b> (Min. Day)	<b>196.2</b> (Max. Day)

**Munster Well System – Annual Water Flow Rates for 2023**

The Munster Well System treated and distributed an average of 216 m<sup>3</sup>/d, which represents 10 per cent of the approved plant capacity of 2160 m<sup>3</sup>/d. The daily flow rates ranged from a minimum of 129.9 m<sup>3</sup>/d to a maximum of 480.9 m<sup>3</sup>/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

**2023 Munster Water Production by month**



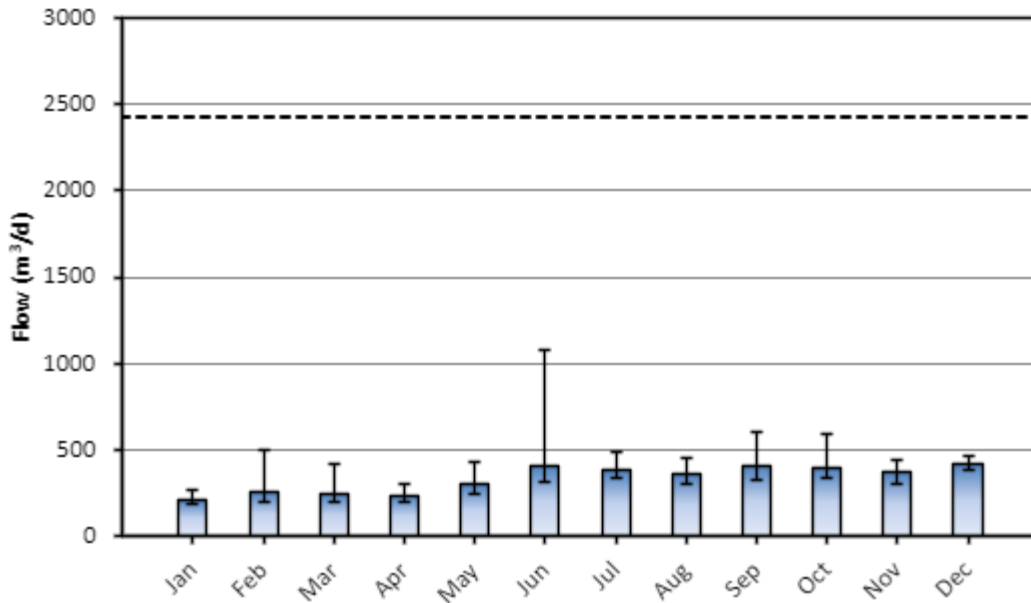
<b>Month</b>	<b>Average Daily Flow Rate (m<sup>3</sup>/d)</b>	<b>Minimum Daily Flow Rate (m<sup>3</sup>/d)</b>	<b>Maximum Daily Flow Rate (m<sup>3</sup>/d)</b>
January	195.4	177.3	233.6
February	189.0	170.1	222.3
March	190.9	170.2	233.8
April	204.5	129.9	273.3
May	269.2	178.2	415.2
June	279.2	193.3	480.9
July	238.6	175.6	327.5
August	211.0	186.0	260.9
September	219.4	183.7	298.7
October	206.8	169.5	250.4
November	195.9	173.3	236.9
December	200.0	170.7	232.2
<b>Year End</b>	<b>216.8</b> (Average)	<b>129.9</b> (Min. Day)	<b>480.9</b> (Max. Day)

### **Richmond West Well System – Annual Water Flow Rates for 2023**

The Richmond West Well System treated and distributed an average of 333.8 m<sup>3</sup>/d, which represents 14 per cent of the approved plant capacity of 2420 m<sup>3</sup>/d. The daily flow rates ranged from a minimum of 183.6 m<sup>3</sup>/d to a maximum of 1077.4 m<sup>3</sup>/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

## 2023 Richmond West Water Production by month



Month	Average Daily Flow Rate (m3/d)	Minimum Daily Flow Rate (m3/d)	Maximum Daily Flow Rate (m3/d)
January	212.8	183.6	263.0
February	258.6	200.1	504.5
March	246.0	203.3	414.2
April	237.3	202.3	303.5
May	298.2	239.9	427.2
June	403.8	320.6	1077.4
July	389.8	341.9	483.0
August	360.2	299.5	459.5
September	409.1	330.3	604.9
October	391.5	335.5	587.2
November	369.9	305.2	440.2
December	424.4	386.5	466.1
<b>Year End</b>	<b>333.8</b> (Average)	<b>183.6</b> (Min. Day)	<b>1077.4</b> (Max. Day)

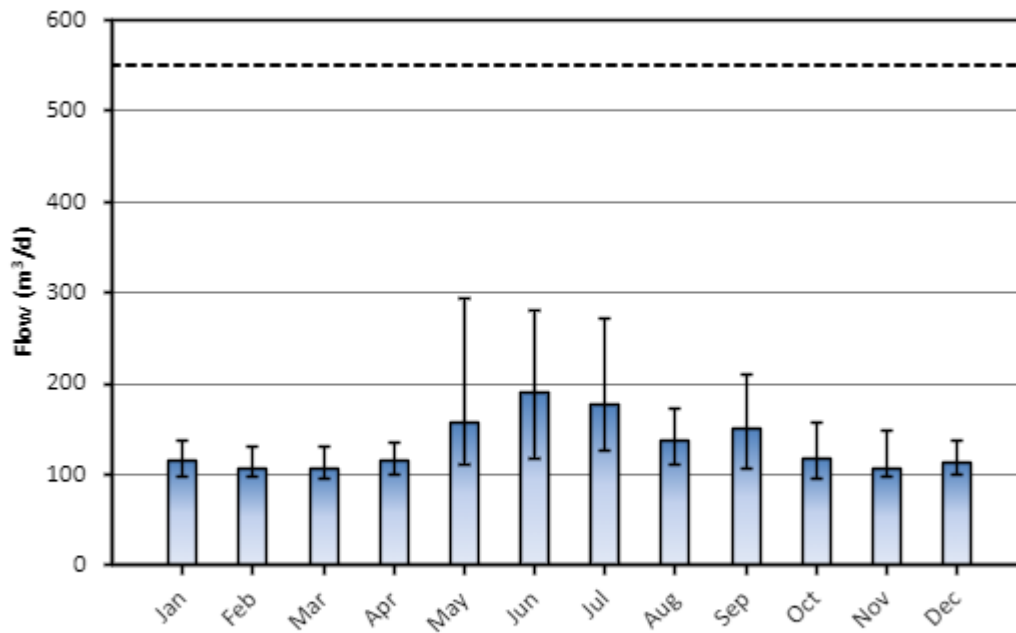


## Shadow Ridge Well System – Annual Water Flow Rates for 2023

The Shadow Ridge Well System treated and distributed an average of 132.3 m<sup>3</sup>/d, which represents 24 per cent of the approved plant capacity of 550 m<sup>3</sup>/d. The daily flow rates ranged from a minimum of 94.9 m<sup>3</sup>/d to a maximum of 293.9 m<sup>3</sup>/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

### 2023 Shadow Ridge Water Production by month



Month	Average Daily Flow Rate (m <sup>3</sup> /d)	Minimum Daily Flow Rate (m <sup>3</sup> /d)	Maximum Daily Flow Rate (m <sup>3</sup> /d)
January	115.3	98.4	136.4
February	107.6	96.9	130.5
March	107.4	96.5	131.7
April	115.2	99.3	135.4
May	157.2	110.5	293.9
June	189.3	118.5	280.4
July	177.5	125.6	272.7

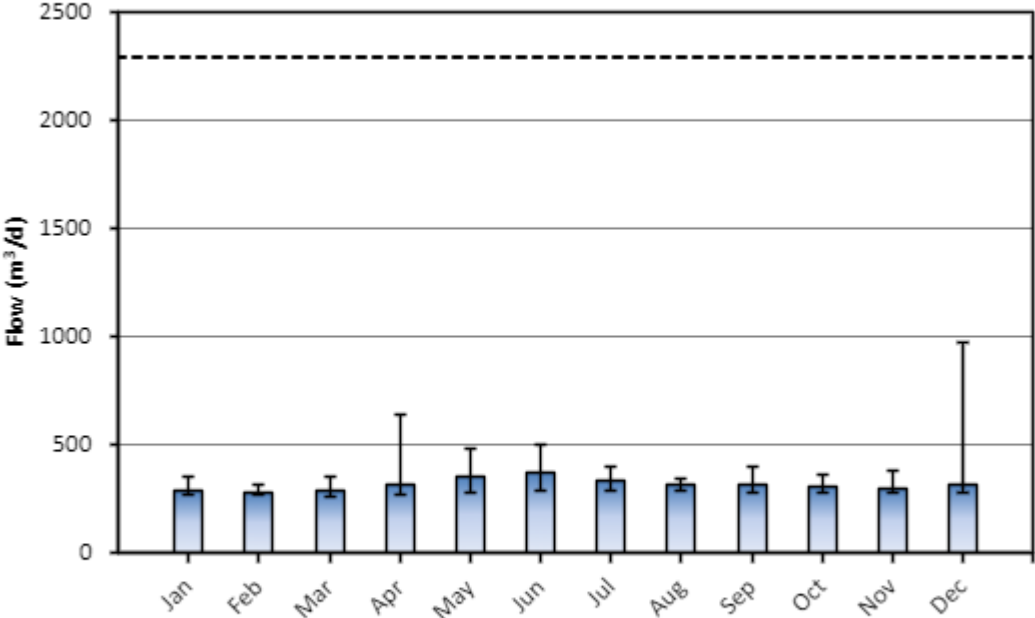
August	136.4	110.7	173.8
September	150.0	106.7	210.1
October	117.4	94.9	156.2
November	106.7	96.9	148.8
December	112.2	99.1	137.7
<b>Year End</b>	<b>132.8</b> (Average)	<b>94.9</b> (Min. Day)	<b>293.9</b> (Max. Day)

**Vars Well System – Annual Water Flow Rates for 2023**

The Vars Well System treated and distributed an average of 317.8 m<sup>3</sup>/d, which represents 14 per cent of the approved plant capacity of 2290 m<sup>3</sup>/d. The daily flow rates ranged from a minimum of 266.7 m<sup>3</sup>/d to a maximum of 975.9 m<sup>3</sup>/d.

The table and graph below summarize the 2023 water production by month, highlighting the minimum, maximum and average daily flows.

**2023 Vars Water Production by month**



<b>Month</b>	<b>Average Daily Flow Rate (m3/d)</b>	<b>Minimum Daily Flow Rate (m3/d)</b>	<b>Maximum Daily Flow Rate (m3/d)</b>
January	290.7	268.7	358.1
February	283.1	267.5	316.7
March	290.6	266.7	356.2
April	319.5	275.4	643.7
May	352.2	276.1	482.6
June	377.6	293.0	503.8
July	333.1	291.9	402.5
August	314.4	289.5	349.8
September	320.0	280.9	405.2
October	307.5	277.2	360.4
November	302.3	280.5	385.6
December	320.3	277.6	975.9
<b>Year End</b>	<b>317.8</b> (Average)	<b>266.7</b> (Min. Day)	<b>975.9</b> (Max. Day)