



2024 SCHEDULE 22 SUMMARY REPORT

MIDHURST VALLEY
DRINKING WATER
SYSTEM

For the period of
January 1st, 2024 to December 31st, 2024

Prepared for the Corporation of the Township of Springwater 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:	260097877
Drinking-Water System Name:	Midhurst Valley Drinking Water System
Drinking-Water System Owner:	The Corporation of the Township of Springwater
Drinking-Water System Category:	Small Municipal Residential
Period being reported:	January 1, 2024 – December 31, 2024

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on June 21, 2024 for the period covering May 31, 2023 to June 21, 2024. On August 22, 2024 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 95.90% 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 2023/2024 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
<p>Non-Compliance with MDWL 128-110 (Issue Number: 1)- conditions associated with maximum flow rate or the rated capacity conditions in the MDWL (13.628 L/sec).</p> <ul style="list-style-type: none"> The flow rates appear to trend above 13.628L/s occasionally throughout the review period. 	N/A	<ul style="list-style-type: none"> While the well pump flow rates have been previously adjusted, additional considerations are being examined. Migration of sediment (fine sand) from the supply wells occurs during occasional well pump cycles. The sediment accumulates in the singer valves and in the filters at the treatment plant, resulting in frequent maintenance. The sediment accumulation may also be impacting the accuracy of the flow rates being measured. Flow rates will be further reviewed with the next inspection of the drinking water system in 2025 to confirm compliance by the Ministry. In response to the issues related to well performance and well flow rates, a well contractor had visited the Midhurst Valley drinking water system to evaluate the matter on June 27, 2024. There was no additional action requested by the Ministry at this time.

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
<p>Non-Compliance with DWWP 128-210 (Issue Number: 2)- conditions associated with Drinking Water System Description.</p> <ul style="list-style-type: none"> A general system description provided in the permit describes the drinking water system as follows: The Midhurst Valley Drinking Water System is a ground water supply consisting of two wells and one drinking water treatment plant with onsite reservoir and high lift pumping and distribution watermains. One discrepancy that has been identified is that the location of the primary disinfection chlorine dosing point for this treatment train occurs before the ultraviolet irradiation system. 		<ul style="list-style-type: none"> The departure from the original design that was submitted to the Ministry is anticipated to be corrected with the maintenance activities being completed by the consulting engineers during the transfer of ownership to the municipality. It was reported that the dosing point modification was confirmed with Trojan as being satisfactory and would not impact the UV performance but has not been considered by the MECP for acceptance. If the disinfection dosing point change does not revert to the original design that has been submitted to the MECP, discussions with the Ministry’s Review Engineer will be necessary to confirm that the departures from the original design are acceptable. This will be addressed in the Phase 2 upgrades as per TYLin. There are no required actions requested from the Ministry at the present time.

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
<ul style="list-style-type: none"> Non-compliance with MDWL #18-110, Issue #1 conditions associated with maximum flow rate or the 	<ul style="list-style-type: none"> This is an ongoing issue which began in November 2023. Exceedance on September 17, 2024 	<ul style="list-style-type: none"> On-going non-compliance for flow rate exceedance as per the requirements of Schedule C: System-Specific Conditions; Table 2: Maximum Flow Rates; Municipal

<p>rated capacity conditions in the MDWL (13.628 L/sec).</p> <ul style="list-style-type: none"> One flow exceedance reported in the reporting period, September 17, 2024 	<p>was 16.62 L/s for approximately 37 minutes.</p>	<p>Drinking Water License Number: 128-110, Issue Number: 1 (Max flow rate of water that flows into a treatment subsystem shall not exceed 13.628 L/s.) No issue with regards to the maximum permitted volume taken per minute as per PTTW #P-300-91182631024 is 2190 L/min (36.5 L/s).</p> <ul style="list-style-type: none"> Devine and Associates were on site multiples times under the direction of TYlin to clean and adjust the PRVs. Hopper was on-site on June 27, 2024 to perform a sand test and identified that the flow control valve (FCV) was not operating properly. A well technician adjusted the Cla-Val to ensure negligible sand content. VFDs were also recommended. Operators continue to review data to ensure there is no issue with meeting procedure disinfection requirements, and document in the logbooks. VFDs to be installed during Phase 2 upgrades
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For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Midhurst Valley Drinking Water System Annual Report (Section 11).

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 9) 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):	128-110 (Issue Number: 1)
Allowable Rated Capacity:	1,177 m ³ /day

Allowable Flowrate into Treatment System:	13.628 L/sec
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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 2024

Treated Water Flow					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	251.52	21.37%	752.42 ^{3A}	63.93%	7797.03
February	239.90	20.38%	274.80	23.35%	6957.17
March	204.83	17.40%	240.14	20.40%	6349.75
April	204.69	17.39%	241.87	20.55%	6140.79
May	251.75	21.39%	546.09	46.40%	7804.38
June	287.89	24.46%	440.92	37.46%	8636.71
July	357.75	30.40%	973.67 ^{3A}	82.72%	11090.39
August	332.39	28.24%	518.31	44.04%	10303.98
September	257.77	21.90%	317.00	26.93%	7733.00
October	262.35	22.29%	336.00	28.55%	8133.00
November	259.50	22.05%	941.00 ^{3A}	79.95%	7785.00
December	312.94	26.59%	640.00 ^{3B}	54.38%	9701.00
2024	268.61	22.82%	973.67	82.72%	98432.20

^{3A}Higher than average maximum daily flow rates due to distribution flushing in January, July and November.

^{3B}Higher than average maximum daily flow rates due to a distribution leak caused by a frozen ball valve breaking.

A review of flow information for the reporting period indicates that the drinking water system operated within the rated capacity specified in the MDWL (1,177 m³/day) for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

Table 4. Treated Water Annual and Monthly Average and Maximum Flowrates to the Distribution System for 2024

Treated Water Flowrate		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	10.45	101.20
February	5.57	16.51
March	5.78	15.56
April	8.65	74.97
May	18.28	82.59
June	24.18	84.18
July	17.71	117.43
August	18.15	95.72
September	27.75	78.28
October	25.31	80.77
November	14.53	84.13
December	16.83	62.98
2024	16.10	117.43

The MDWL did not list a rated capacity for the maximum flow rate of treated water that flows from the treatment subsystem to the distribution system.

As per the MDWL, the maximum flow rate of water that flows into a treatment subsystem shall not exceed the listed maximum flowrate (13.628 L/s). A summary of flowrates of water that flows into the treatment subsystem(s) can be found in Table 5 and Table 6.

Table 5. Raw Water (Well #1 – TW22) Flows – Annual and Monthly Average Maximum Flowrate with Comparison to Rated Capacity into the Treatment Subsystem for 2024

Raw Water Flowrate – Well #1				
Timeframe	Average Flowrate (L/sec)	Percent of Rated Capacity	Maximum Flowrate (L/sec)	Percent of Rated Capacity
January ^{5A}	13.53	99.28%	14.25	104.56%
February ^{5A}	13.53	99.28%	14.28	104.78%
March ^{5A}	12.67	92.97%	14.02	102.88%
April ^{5A}	10.91	80.06%	13.85	101.63%
May	12.61	92.53%	13.23	97.08%
June	12.62	92.60%	13.25	97.23%
July	12.58	92.31%	12.93	94.88%
August	12.78	93.78%	13.39	98.25%
September	12.70	93.19%	13.13	96.35%
October	12.65	92.82%	12.92	94.80%
November	12.55	92.09%	13.33	97.81%

Raw Water Flowrate – Well #1				
Timeframe	Average Flowrate (L/sec)	Percent of Rated Capacity	Maximum Flowrate (L/sec)	Percent of Rated Capacity
December	12.15	89.15%	12.76	93.63%
2024	12.61	92.53%	14.28	104.78%

^{5A} Maximum flowrate exceedances include flow to waste that occur on well start up. None of these instances exceeded the maximum allowable flowrate for an extended duration.

Table 6. Raw Water (Well #2 – TW19) Flows – Annual and Monthly Average Maximum Flowrate with Comparison to Rated Capacity into the Treatment Subsystem for 2024

Raw Water Flowrate – Well #2				
Timeframe	Average Flowrate (L/sec)	Percent of Rated Capacity	Maximum Flowrate (L/sec)	Percent of Rated Capacity
January ^{6B}	12.72	93.34%	18.56	136.19%
February ^{6B}	12.02	88.20%	15.73	115.42%
March ^{6B}	11.59	85.05%	17.08	125.33%
April ^{6B}	12.78	93.78%	18.29	134.21%
May	11.47	84.16%	12.59	92.38%
June ^{6B}	4.05	29.72%	17.92	131.49%
July ^{6B}	14.47	106.18%	14.47	106.18%
August ^{6B}	14.95	109.70%	15.35	112.64%
September ^{6B}	15.73	115.42%	16.83	123.50%
October ^{6A}	0.00	0.00%	0.00	0.00%
November ^{6A}	0.00	0.00%	0.00	0.00%
December ^{6A}	0.00	0.00%	0.00	0.00%
2024	12.20	89.52%	18.56	136.19%

^{6A} Well #2 was offline from September 17, 2024 to present, no water was sent through the treatment system.

^{6B} Maximum flowrate exceedances include flow to waste and occur on well start up. Instances where the well exceeded the maximum allowable flowrate for an extended duration were reported to the September 17, 2024. See Table 1 and 2 for more information

A review of the flow information for the reporting period indicates that the drinking water system did not operate within the rated capacity specified in the MDWL (13.628 L/s), for the maximum flow rates of raw water that flows into the treatment system. Maximum flowrate exceedances in January through September include raw water flow rates to waste, and well start up. See Table 1 for more information.

2.2 Raw Water

Permit to Take Water Number (PTTW):	P-300-9182631024, Version 1.0
Allowable Maximum Raw Water Volume - Well 1:	3,153.60 m ³ /day
Allowable Maximum Raw Water Flowrate - Well 1:	2190 L/min (36.5 L/sec)
Allowable Maximum Raw Water Volume - Well 2:	3,153.60 m ³ /day
Allowable Maximum Raw Water Flowrate – Well 2:	2190 L/min (36.5 L/sec)
Allowable Combined (Well 1 and Well 2) Raw Water Volume	3,153.60 m ³ /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 1) Monthly Average, Maximum Flow and Total Volume for 2024

Raw Water Flow – Well 1					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	134.90	4.28%	319.12	10.12%	4181.95
February	137.88	4.37%	251.98	7.99%	3998.51
March	118.75	3.77%	229.96	7.29%	3681.31
April	96.77	3.07%	230.40	7.31%	2903.10
May	182.09	5.77%	308.51	9.78%	5644.64
June	273.77	8.68%	512.57	16.25%	8213.20
July	366.93	11.64%	654.72	20.76%	11374.70
August	347.10	11.01%	619.00	19.63%	10412.87
September	288.47	9.15%	565.00	17.92%	8654.00
October	268.32	8.51%	371.00	11.76%	8318.00
November	266.23	8.44%	594.00	18.84%	7987.00
December	350.16	11.10%	640.00	20.29%	10855.00
2024	235.95	7.48%	654.72	20.76%	86224.28

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 (3,153.60 m³/day).

Table 8. Raw Water (Well 1) Annual and Monthly Average and Maximum Flowrates for 2024

Raw Water Flowrate – Well #1		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	13.53	14.25
February	13.53	14.28
March	12.67	14.02
April	10.91	13.85
May	12.61	13.23
June	12.62	13.25
July	12.58	12.93
August	12.78	13.39
September	12.70	13.13
October	12.65	12.92
November	12.55	13.33
December	12.15	12.76
2024	12.61	14.28

A review of flow information for the reporting period indicates that the system operated within the PTTW’s maximum allowable daily raw water flow rate for Well 1 (36.5 L/sec).

Table 9. Raw Water (Well 2) Monthly Average, Maximum Flow and Total Volume for 2024

Raw Water Flow – Well 2					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	128.28	4.07%	531.80	16.86%	3976.75
February	114.96	3.65%	228.46	7.24%	3333.86
March	97.04	3.08%	181.77	5.76%	3008.36
April	123.57	3.92%	243.35	7.72%	3706.99
May	112.15	3.56%	349.08	11.07%	2467.31
June	24.36	0.77%	145.63	4.62%	730.72
July ^{9A}	2.69	0.09%	2.69	0.09%	2.69
August	94.00	2.98%	203.00	6.44%	282.00
September	122.01	3.87%	188.00	5.96%	366.02
October ^{9A}	0.00	0.00%	0.00	0.00%	0.00
November ^{9A}	0.00	0.00%	0.00	0.00%	0.00
December ^{9A}	0.00	0.00%	0.00	0.00%	0.00
2024	91.01	2.89%	531.80	16.86%	17874.70

^{9A} Well #2 was offline from for the majority of July and from September 17, 2024 to present, no water was sent through the treatment 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 2 (3,153.60 m³/day).

Table 10. Raw Water (Well 2) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #2		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	12.72	18.56
February	12.02	15.73
March	11.59	17.08
April	12.78	18.29
May	11.47	12.59
June	4.05	17.92
July	14.47	14.47
August	14.95	15.35
September	15.73	16.83
October ^{10A}	0.00	0.00
November ^{10A}	0.00	0.00
December ^{10A}	0.00	0.00
2024	12.20	18.56

^{10A} Well #2 was offline from September 17, 2024 to present, no water was sent through the treatment system.

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 2 (36.5 L/sec).

Table 11. Total Combined Raw Water (Well 1, and Well 2) Monthly Average, Maximum Flow and Total Volume for 2024

Total Raw Water Flow – Well 1 and Well 2					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	131.59	4.17%	531.80	16.86%	8158.70
February	126.42	4.01%	252.00	7.99%	7332.37
March	107.89	3.42%	230.00	7.29%	6689.67
April	110.17	3.49%	243.40	7.72%	6610.09
May	147.12	4.67%	349.10	11.07%	8111.95

Total Raw Water Flow – Well 1 and Well 2					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
June	149.06	4.73%	512.60	16.25%	8943.92
July	184.81	5.86%	654.70	20.76%	11377.39
August	220.55	6.99%	619.00	19.63%	10694.87
September	205.24	6.51%	565.00	17.92%	9020.02
October	134.16	4.25%	371.00	11.76%	8318.00
November	133.11	4.22%	594.00	18.84%	7987.00
December	175.08	5.55%	640.00	20.29%	10855.00
2024	163.48	5.18%	654.70	20.76%	104098.98

A review of the flow information for the reporting period indicates that the system operated within the PTTW’s maximum allowable daily raw water combined flow from Well #1 and Well #2 (3,153.60 m³/day).