2024 SCHEDULE 22 SUMMARY REPORT

SNOW 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

Township of Springwater

OCWA
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:

Drinking-Water System Number:	260048204
Drinking-Water System Name:	Snow Valley Highlands Drinking Water System
Drinking-Water System Owner:	The Corporation of the Township of Springwater
Drinking-Water System Category:	Large 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 December 18, 2024 for the period covering January 18, 2024 to December 18, 2024. On February 11, 2025 the Inspection Report was issued and 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 2023/2024 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 a 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
• December 31, 2023 to February 2, 2024: Non-compliance with PTTW 4676-B39PQB, Condition 4.2 - loss of monitoring data • As per the PTTW, continuous water level recorders in each of the supply wells and monitoring wells shall be maintained.	December 31, 2023 at 0420 hrs to February 2, 2024 at 1125 hrs Total time approximately 33 days and 7 hours	• On February 2, 2024, OCWA downloaded and verified that all monitoring data had been collected prior to December 31, 2023. • OCWA erased the memory on the probe to restart the data collection process. • On February 5, 2024, OCWA returned to the monitoring well to verify that the probe was working correctly and confirmed the collection of data from restarted as of February 2, 2024.

Incident	Duration	Corrective Actions
• On February 2, 2024, OCWA arrived at monitoring well TW2/88 (5723283) to collect data from the logger and found that it had stopped recording due to a memory issue.		• Verbal and written notification of non-compliance provided to the MECP on January 5, 2024. No further actions required.
• February 27, 2024: Loss of monitoring data - occurrence incident with O.Reg 170/03, Schedule 6. • Loss of data at the Old Snow Valley Pumphouse due to a power outage event • OCWA was performing maintenance on the generator transfer switch which required the main disconnect to be turned off • During the maintenance, SCADA and analyzers were running off UPS power. However, the UPS battery died at approximately 0922 hrs causing a loss of data.	0900 hrs to 0927 hrs Total time approximately 27 minutes	• During this time no water was supplied to the system and water/pressure was being maintained from Snow Valley Highlands • OCWA was monitoring the situation while work was being conducted on the generator transfer switch. • When power was restored, the jockey/demand pumps remained off. • OCWA took treated water and two distribution chlorine residuals, which were within compliance. • The plant was returned to normal running conditions at approximately 1031 hrs. • Verbal and written notification of occurrence provided to the MECP on February 27, 2024. No further actions required.
• June 19, 2024: Low Pressure and loss of data – occurrence incident with O.Reg 170/03, Schedule 6. • Loss of system pressure data at the Centre Vespra (Stonemanor) Pumphouse due to a power outage event • OCWA was called out due to various alarms at the Centre Vespra Pumphouse • The Township had been receiving calls from residents regarding water pressure issues	1725 hrs to 1746 hrs Total time approximately 21 minutes	• OCWA arrived on site at 1705 hrs to find no utility power and the generator not running. Computers/HMI were still running off of UPS power • Pressure was maintained above 18 psi until 1735 hrs when the flow of water was switched to the Snow Valley Highlands DWS. • OCWA took distribution cL2 residuals, which were in compliance – 1.07 mg/L at the Trail Blvd sample station, 1.10 mg/L at the Victoria Wood Ave sample station. • The plant was returned to normal running conditions at approximately 1950 hrs. • Verbal and written notification of occurrence provided to the MECP on June 20, 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 Snow Valley Highlands Drinking Water System Annual Report (Section 11).

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 13) 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):	128-102 (Issue Number: 3)
Allowable Rated Capacity – Well No. 1 & 2 Pumphouse	1,132 m^3/day
Allowable Rated Capacity – Well No. 3 & 4 Pumphouse	1,634 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 2024 – Old Snow Valley (Well No. 1 & 2 Pumphouse)

Treated Water Flow – Old Snow Valley (Well No. 1 & 2 Pumphouse)					
Timeframe	**Average Flow (m^3/day)**	**Percent of Rated Capacity**	**Maximum Flow (m^3/day)**	**Percent of Rated Capacity**	**Total Volume (m^3)**
January	222.65	19.67%	270.00	23.85%	6902.00
February	220.52	19.48%	271.00	23.94%	6395.00
March	196.13	17.33%	238.00	21.02%	6080.00
April	214.13	18.92%	269.00	23.76%	6424.00
May	310.61	27.44%	573.00	50.62%	9629.00
June	435.03	38.43%	732.00	64.66%	13051.00
July	473.35	41.82%	682.00	60.25%	14674.00
August	555.48	49.07%	728.00	64.31%	17220.00
September	511.33	45.17%	671.00	59.28%	15340.00
October	252.10	22.27%	577.00	50.97%	7815.00
November	184.48	16.30%	220.00	19.43%	4243.00
December	219.74	19.41%	308.00	27.21%	6812.00

Treated Water Flow – Old Snow Valley (Well No. 1 & 2 Pumphouse)					
Timeframe	**Average Flow (m^3/day)**	**Percent of Rated Capacity**	**Maximum Flow (m^3/day)**	**Percent of Rated Capacity**	**Total Volume (m^3)**
2024	**316.30**	**27.94%**	**732.00**	**64.66%**	**114585.00**

A review of flow information for the reporting period indicates that the drinking water system operated within the rated capacity specified in the MDWL (1,132 m^3/day), for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system for Well # 1 and Well #2 Pumphouse (Old Snow Valley).

Table 4. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2024 – Snow Valley Highlands (Well No. 3 & 4 Pumphouse)

Treated Water Flow – Snow Valley Highlands (Well No. 3 & 4 Pumphouse)					
Timeframe	**Average Flow (m^3/day)**	**Percent of Rated Capacity**	**Maximum Flow (m^3/day)**	**Percent of Rated Capacity**	**Total Volume (m^3)**
January	546.48	33.44%	677.00	41.43%	16941.00
February	543.52	33.26%	662.00	40.51%	15762.00
March	547.29	33.49%	653.00	39.96%	16966.00
April	572.80	35.06%	677.00	41.43%	17184.00
May	786.05	48.11%	1442.00	88.25%	24367.70
June	904.13	55.33%	1340.00	82.01%	27124.00
July	974.19	59.62%	1465.00	89.66%	30200.00
August	1069.13	65.43%	1500.00	91.80%	33143.00
September	988.23	60.48%	1368.00	83.72%	29647.00
October	730.03	44.68%	1423.00	87.09%	22631.00
November	569.50	34.85%	712.00	43.57%	17085.00
December	599.90	36.71%	785.00	48.04%	18597.00
2024	**735.94**	**45.04%**	**1500.00**	**91.80%**	**269647.70**

A review of flow information for the reporting period indicates that the drinking water system operated within the rated capacity specified in the MDWL (1,634 m^3/day), for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system for Well #3 and Well #4 Pumphouse (Snow Valley Highlands).

A summary of flowrates of water that flows into the treatment system can be found in Table 6, Table 8, Table 10 and Table 12. 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):	4676-B39PQB
Allowable Maximum Raw Water Volume - Well 1:	1,131.84 m^3/day
Allowable Maximum Raw Water Flowrate - Well 1:	786 L/min (13.1 L/sec)
Allowable Maximum Volume of Raw Water - Well 2:	1,503.36 m^3/day
Allowable Maximum Raw Water Flowrate – Well 2:	1,044 L/min (17.4 L/sec)
Allowable Maximum Volume of Raw Water - Well 3:	1,632.96 m^3/day
Allowable Maximum Raw Water Flowrate – Well 3:	1,134 L/min (18.9 L/sec)
Allowable Maximum Volume of Raw Water - Well 4:	1,632.96 m^3/day
Allowable Maximum Raw Water Flowrate – Well 4:	1,134 L/min (18.9 L/sec)
Allowable Annual Average Daily Taking of Water from Any Combination of Wells:	2,086.60 m^3/day
Allowable Maximum Daily Volume from any Combination of Wells*:	4695.30 m^3/day
Allowable Annual Total Taking from any Combination of Wells*:	763,695.6 m^3/year

*As per section 3.3 of the PTTW, to accommodate periods of high water demand, the daily total amount of taking from any combination of wells can be up to 4,965,300 litres per day so long as the total taking does not exceed 763,695.6 m^3/year.

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 5. 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	99.40	8.78%	138.00	12.19%	2485.00
February	113.59	10.04%	151.00	13.34%	3294.00
March	100.81	8.91%	128.00	11.31%	3125.00
April	109.33	9.66%	151.00	13.34%	3280.00
May	156.35	13.81%	247.00	21.82%	4847.00
June	226.60	20.02%	423.00	37.37%	6798.00
July	240.74	21.27%	392.00	34.63%	7463.00
August	285.68	25.24%	476.00	42.06%	8856.00
September	264.24	23.35%	425.00	37.55%	7663.00
October	137.65	12.16%	256.00	22.62%	4267.00
November	90.17	7.97%	121.00	10.69%	2164.00
December	110.68	9.78%	166.00	14.67%	3431.00
2024	**161.27**	**14.25%**	**476.00**	**42.06%**	**57673.00**

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well 1 (1,131.84 m^3/day).

Table 6. Raw Water (Well 1) Annual and Monthly Maximum Flowrates for 2024

Raw Water Flowrate – Well 1	
Timeframe	**Maximum Flowrate (L/sec)**
January	12.80
February	12.80
March	12.80
April	13.37[6A]
May	13.18[6B]
June	13.00
July	13.20[6C]
August	13.00
September	13.15[6D]
October	13.00
November	13.00
December	13.08
2024	**13.37[6A]**

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 (13.1 L/sec) with exception of:

- [6A]April 22, 2024 - Flowrate exceedances were of very short duration and were a result of well pump start-up
- [6B]May 22, 2024 - Flowrate exceedances were of very short duration and were due to a power outage.
- [6C]July 17, 2024 - Flowrate exceedances were of very short duration and were a result of well pump start-up
- [6D]September 23, 2024 - Flowrate exceedances were of very short duration and were a result of well pump start-up

Table 7. Raw Water (Well 2) Monthly Average, Maximum Flow and Total Volume for 2024

Raw Water Flow – 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	146.03	9.71%	268.00	17.83%	4527.00
February	109.59	7.29%	170.00	11.31%	3178.00
March	98.06	6.52%	122.00	8.12%	3040.00
April	106.97	7.12%	140.00	9.31%	3209.00

Raw Water Flow – 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)**
May	155.90	10.37%	331.00	22.02%	4833.00
June	211.50	14.07%	356.00	23.68%	6345.00
July	232.81	15.49%	413.00	27.47%	7217.00
August	271.48	18.06%	405.00	26.94%	8416.00
September	257.90	17.15%	433.00	28.80%	7737.00
October	115.48	7.68%	322.00	21.42%	3580.00
November	89.50	5.95%	116.00	7.72%	2148.00
December	109.00	7.25%	161.00	10.71%	3379.00
2024	**158.69**	**10.56%**	**433.00**	**28.80%**	**57609.00**

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #2 (1,503.36 m^3/day).

Table 8. Raw Water (Well 2) Annual and Monthly Maximum Flowrates for 2024

Raw Water Flowrate – Well 2	
Timeframe	**Maximum Flowrate (L/sec)**
January	16.80
February	17.00
March	17.20
April	18.81[8A]
May	17.30
June	16.50
July	16.50
August	16.40
September	16.60
October	16.60
November	16.70
December	16.60
2024	**18.81[8A]**

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 (17.4 L/sec) with the exception of:

- [8A]April 18, 2024 – Flowrate exceedances were of very short duration and were a result of well pump start-up

Table 9. Raw Water (Well 3) Monthly Average, Maximum Flow and Total Volume for 2024

Raw Water Flow – Well 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	300.23	18.39%	367.00	22.47%	9307.00
February	294.90	18.06%	362.00	22.17%	8552.00
March	305.96	18.74%	450.00	27.56%	9484.70
April	286.13	17.52%	341.00	20.88%	8584.00
May	397.45	24.34%	696.00	42.62%	12321.00
June	444.33	27.21%	657.00	40.23%	13330.00
July	475.00	29.09%	727.00	44.52%	14725.00
August	517.23	31.67%	693.00	42.44%	16034.00
September	484.43	29.67%	671.00	41.09%	14533.00
October	369.10	22.60%	675.00	41.34%	11442.00
November	310.97	19.04%	409.00	25.05%	9329.00
December	304.29	18.63%	364.00	22.29%	9433.00
2024	**374.17**	**22.91%**	**727.00**	**44.52%**	**137074.70**

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 (1,632.96 m^3/day).

Table 10. Raw Water (Well 3) Annual and Monthly Maximum Flowrates for 2024

Raw Water Flowrate – Well 3	
Timeframe	**Maximum Flowrate (L/sec)**
January	14.40
February	14.50
March	17.80
April	14.70
May	14.50
June	14.40
July	14.70
August	19.60[10A]
September	17.40
October	14.70
November	14.60
December	14.70
2024	**19.60[10A]**

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 #3 (18.9 L/sec) with the exception of:

- [10A] August 31, 2024 – Flowrate exceedances were of very short duration and were a result of well pump start-up

Table 11. Raw Water (Well 4) Monthly Average, Maximum Flow and Total Volume for 2024

Raw Water Flow – Well 4					
Timeframe	**Average Flow (m^3/day)**	**Percent of Allowable Volume**	**Maximum Flow (m^3/day)**	**Percent of Allowable Volume**	**Total Volume (m^3)**
January	259.13	15.87%	317.00	19.41%	8033.00
February	249.97	15.31%	301.00	18.43%	7249.00
March	240.18	14.71%	317.00	19.41%	7445.50
April	283.53	17.36%	338.00	20.70%	8506.00
May	396.84	24.30%	693.00	42.44%	12302.00
June	443.97	27.19%	663.00	40.60%	13319.00
July	478.35	29.29%	737.00	45.13%	14829.00
August	521.84	31.96%	700.00	42.87%	16177.00
September	485.53	29.73%	675.00	41.34%	14566.00
October	368.90	22.59%	677.00	41.46%	11436.00
November	305.93	18.73%	404.00	24.74%	9178.00
December	296.77	18.17%	355.00	21.74%	9200.00
2024	**360.91**	**22.10%**	**737.00**	**45.13%**	**132240.50**

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 #4 (1,632.96 m^3/day).

Table 12. Raw Water (Well 4) Annual and Monthly Maximum Flowrates for 2024

Raw Water Flowrate – Well 4	
Timeframe	**Maximum Flowrate (L/sec)**
January	12.20
February	12.00
March	14.90
April	13.70
May	13.70
June	13.70
July	13.70
August	17.90
September	13.50

Raw Water Flowrate – Well 4	
Timeframe	**Maximum Flowrate (L/sec)**
October	13.60
November	13.50
December	13.50
2024	**17.90**

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 #4 (18.9 L/sec).

Table 13. Combined Well (Well 1, Well 2, Well 3 & Well 4) Annual and Monthly Average, Maximum and Total Flow Volume for 2024

Combined Well Flow (Well 1, Well 2, Well 3 & Well 4)					
Timeframe	**Average Flow (m^3/day)**	**Percent of Allowable Volume (2086.60 m3/day)**	**Maximum Flow (m^3/day)**	**Percent of Allowable Volume (4695.30m3/day)**	**Total Volume (m^3)**
January	785.55	37.65%	952.00	20.28%	24352.00
February	768.03	36.81%	940.00	20.02%	22273.00
March	745.01	35.70%	891.00	18.98%	23095.20
April	785.97	37.67%	954.00	20.32%	23579.00
May	1106.55	53.03%	1964.00	41.83%	34303.00
June	1326.40	63.57%	2061.00	43.89%	39792.00
July	1426.90	68.38%	2152.00	45.83%	44234.00
August	1596.23	76.50%	2131.00	45.39%	49483.00
September	1483.30	71.09%	2021.00	43.04%	44499.00
October	991.13	47.50%	1930.00	41.10%	30725.00
November	760.63	36.45%	1033.00	22.00%	22819.00
December	820.74	39.33%	1033.00	22.00%	25443.00
2024	**1049.70**	**50.31%**	**2152.00**	**45.83%**	**384597.20**

A review of flow information for the reporting period indicates that the system operated within the PTTW's allowable limits for:

- The annual average daily taking of water (2,086.60 m^3/day). The 2024 annual average was 1049.70 m^3/day
- The maximum allowable daily taking of water from any combination of wells (4695.30 m^3/day). The 2024 maximum daily taking was 2,152.00 m^3/day and;
- Within the allowable annual total water taking from any combination of wells (763,695.6 m^3/year). The 2024 total for the year was 384,597.20 m^3/year