



2022 SCHEDULE 22 SUMMARY REPORT

ERIN
DRINKING WATER
SYSTEM

For the period of
January 1st, 2022 to December 31st, 2022

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



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:	220000013
Drinking-Water System Name:	Erin Drinking Water System
Drinking-Water System Owner:	The Corporation of the Town of Erin
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2022 – December 31, 2022

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on November 8, 2022 for the period covering January 26, 2022, 2021 to November 8, 2022. On December 16, 2022 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 2021/2022 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
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 Erin 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):	102-101 (Issue Number: 4)
Allowable Rated Capacity:	2,592 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 (Well E7) Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2022

Treated Water Flow – Well E7					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	527.67	20.36%	1098.50	42.38%	13191.74
February	685.65	26.45%	1575.82	60.80%	17141.35
March	695.23	26.82%	1552.50	59.90%	17380.74
April	389.06	15.01%	1110.65	42.85%	11282.63
May	333.67	12.87%	803.98	31.02%	10343.70
June	582.82	22.49%	1538.70	59.36%	17484.53
July	751.66	29.00%	1612.60	62.21%	17288.09
August	643.54	24.83%	1515.40	58.46%	16732.10
September	453.59	17.50%	1248.41	48.16%	13607.74
October	352.99	13.62%	1177.98	45.45%	10942.84
November	433.77	16.73%	1007.69	38.88%	13013.11
December	497.56	19.20%	1509.21	58.23%	15424.31
2022	528.93	20.41%	1612.60	62.21%	173832.88

Table 4. Treated Water (Well E8) Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2022

Treated Water Flow – Well E8					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	733.88	28.31%	1432.39	55.26%	22750.28
February	736.44	28.41%	1417.07	54.67%	18410.93
March	589.43	22.74%	1435.03	55.36%	17683.05
April	418.06	16.13%	776.00	29.94%	12541.68
May	575.56	22.21%	1384.81	53.43%	17842.26
June	596.37	23.01%	1418.52	54.73%	17891.19
July	792.81	30.59%	1452.91	56.05%	24577.13
August	725.87	28.00%	1453.76	56.09%	18872.53
September	645.70	24.91%	1330.03	51.31%	18079.69
October	658.98	25.42%	1349.66	52.07%	20428.40
November	848.25	32.73%	2154.00	83.10%	19509.68
December	487.90	18.82%	1435.84	55.40%	15125.04
2022	644.70	24.87%	2154.00	83.10%	223711.86

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 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.

Table 5. Treated Water (Well E7) Annual and Monthly Average and Maximum Flowrates for 2022

Treated Water Flowrate – Well E7		
Timeframe	Average Flowrate (L/min)	Maximum Flowrate (L/min)
January	874.71	1642.32
February	985.67	1633.44
March	872.72	1643.00
April	1079.20	1651.68
May	1034.48	1651.44
June	993.24	2400.00
July	833.16	1673.28
August	949.51	1651.92
September	1121.49	2232.96

Treated Water Flowrate – Well E7		
Timeframe	Average Flowrate (L/min)	Maximum Flowrate (L/min)
October	1056.90	2400.00
November	1009.98	1657.20
December	914.41	2400.00
2022	977.12	2400.00

Table 6. Treated Water (Well E8) Annual and Monthly Average and Maximum Flowrates for 2022

Treated Water Flowrate – Well E8		
Timeframe	Average Flowrate (L/min)	Maximum Flowrate (L/min)
January	893.50	1130.40
February	824.15	1112.16
March	831.43	1130.64
April	753.29	1114.08
May	819.17	1106.88
June	824.49	1106.40
July	860.21	1121.04
August	694.74	1104.96
September	876.06	1107.60
October	851.71	1110.72
November	158.63	1104.72
December	592.28	2400.00
2022	748.31	2400.00

2.2 Raw Water

Permit to Take Water Number (PTTW):	8112-9CPNNW, issued October 31, 2013
Allowable Maximum Raw Water Volume – Well E7:	2,160.00 m ³ /day
Allowable Maximum Raw Water Flowrate - Well E7:	1,800 L/min
Allowable Maximum Volume of Raw Water – Well E8:	1,968.00 m ³ /day
Allowable Maximum Raw Water Flowrate – Well E8:	1,640 L/min
Allowable Maximum Raw Water Volume – Well BE1:	655.200 m ³ /day
Allowable Maximum Raw Water Flowrate - Well BE1:	455 L/min

Allowable Maximum Volume of Raw Water – Well BE2:	655.200 m ³ /day
Allowable Maximum Raw Water Flowrate – Well BE2:	455 L/min
Allowable Maximum Raw Water Volume for any Combination of Wells:	4,783.200 m ³ /day
Allowable Maximum Raw Water Volume for Combination of Well BE1 & Well BE2:	655.200 m ³ /day

Permit to Take Water Number (PTTW):	6432-CC5LK7, issued August 5, 2022
Allowable Maximum Raw Water Volume – Well E7:	2,160.00 m ³ /day
Allowable Maximum Raw Water Flowrate - Well E7:	1,800 L/min
Allowable Maximum Volume of Raw Water – Well E8:	1,968.00 m ³ /day
Allowable Maximum Raw Water Flowrate – Well E8:	1,640 L/min
Allowable Maximum Volume of Raw Water – Well E9:	2764.800 m ³ /day
Allowable Maximum Raw Water Flowrate – Well E9:	1,920 L/min
Allowable Maximum Raw Water Volume for any Combination of Wells:	4,128.000 m ³ /day
Allowable Maximum Raw Water Volume for any Combination of Wells for one 60 day consecutive period during wellfield testing:	6,892.800 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.

The respective requirements for the above noted PTTWs are applicable to the following timeframes within the reporting period:

- PTTW 8112-9CPNNW – January 1, 2022 to August 4, 2022
- PTTW 6432-CC5LK7 – August 5, 2022 to December 31, 2022

Table 7. Raw Water (Well E7) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Well E7					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	565.60	26.19%	1101.87	51.01%	13008.76
February	706.86	32.72%	1568.53	72.62%	16964.55

Raw Water Flow – Well E7					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
March	659.50	30.53%	1576.94	73.01%	17147.04
April	373.90	17.31%	1183.17	54.78%	11217.06
May	327.60	15.17%	815.85	37.77%	10155.66
June	577.84	26.75%	1480.84	68.56%	17335.11
July	783.06	36.25%	1642.00	76.02%	17227.30
August	637.43	29.51%	1481.00	68.56%	16573.24
September	449.83	20.83%	1200.17	55.56%	13494.79
October	349.87	16.20%	1206.16	55.84%	10846.08
November	429.84	19.90%	989.93	45.83%	12895.27
December	492.54	22.80%	1520.70	70.40%	15268.89
2022	529.49	24.51%	1642.00	76.02%	172133.75

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 8112-9CPNNW and PTTW 6432-CC5LK7 for Well E7.

Table 8. Raw Water (Well E7) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Well E7		
Timeframe	Average Flowrate (L/min)	Maximum Flowrate (L/min)
January	1455.68	1490.40
February	1387.29	1465.92
March	1405.66	1490.00
April	1474.15	1506.72
May	1352.42	1533.12
June	1370.62	1544.16
July	1535.01	1574.00
August	1551.7	1589.04
September	1508.63	1583.52
October	1394.17	1582.08
November	1389.59	1575.36
December	1137.21	1557.84
2022	1407.49	1589.04

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW 8112-9CPNNW and PTTW 6432-CC5LK7 for Well E7.

Table 9. Raw Water (Well E8) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Well E8					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	754.96	38.36%	1390.65	70.66%	22648.94
February	765.21	38.88%	1451.99	73.78%	18364.99
March	626.53	31.84%	1388.00	70.53%	17542.84
April	415.54	21.11%	824.00	41.87%	12466.11
May	572.22	29.08%	1398.70	71.07%	17738.95
June	592.70	30.12%	1418.11	72.06%	17780.96
July	810.74	41.20%	1459.95	74.18%	24322.27
August	693.01	35.21%	1423.56	72.34%	18711.24
September	641.13	32.58%	1370.99	69.66%	17951.75
October	651.37	33.10%	1396.14	70.94%	20192.40
November	558.78	28.39%	1385.77	70.42%	16763.39
December	707.25	35.94%	1404.08	71.35%	21924.63
2022	649.12	32.98%	1459.95	74.18%	226408.47

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 8112-9CPNNW and PTTW 6432-CC5LK7 for Well E8.

Table 10. Raw Water (Well E8) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Well E8		
Timeframe	Average Flowrate (L/min)	Maximum Flowrate (L/min)
January	1285.11	1316.88
February	1285.85	1306.08
March	1286.15	1320.00
April	1297.23	1318.56
May	1293.84	1320.24
June	1241.35	1309.52
July	1274.52	1302.00
August	1282.65	1305.12
September	1283.25	1309.44
October	1280.04	1302.72
November	1285.36	1304.16
December	1194.39	1307.04
2022	1273.60	1320.24

A review of flow information for the reporting period indicates that the system operated within the maximum allowable raw water flowrate listed in PTTW 8112-9CPNNW and PTTW 6432-CC5LK7 for Well E8.

Well BE1 and Well BE2 were not used for water taking during the reporting period, as such the system operated within the maximum allowable daily raw water volume for Well BE1 and Well BE2 and the maximum allowable raw water volume for a combination of Well BE1 and Well BE2 as listed in PTTW 8112-9CPNNW.

Table 11. Raw Water (Well E9) Monthly Average, Maximum Flow and Total Volume for 2022^{11A}

Raw Water Flow – Well E9					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	N/A	N/A	N/A	N/A	N/A
February	N/A	N/A	N/A	N/A	N/A
March	N/A	N/A	N/A	N/A	N/A
April	N/A	N/A	N/A	N/A	N/A
May	N/A	N/A	N/A	N/A	N/A
June	N/A	N/A	N/A	N/A	N/A
July	N/A	N/A	N/A	N/A	N/A
August	N/A	N/A	N/A	N/A	N/A
September	N/A	N/A	N/A	N/A	N/A
October	N/A	N/A	N/A	N/A	N/A
November	N/A	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A	N/A
2022	N/A	N/A	N/A	N/A	N/A

^{11A}There was no water taking for Well E9 during the reporting period, the well has been approved in the PTTW but has not been commissioned and is not online.

Table 12. Raw Water (Well E9) Annual and Monthly Average and Maximum Flowrates for 2022^{12A}

Raw Water Flowrate – Well E9		
Timeframe	Average Flowrate (L/min)	Maximum Flowrate (L/min)
January	N/A	N/A
February	N/A	N/A
March	N/A	N/A
April	N/A	N/A
May	N/A	N/A
June	N/A	N/A

Raw Water Flowrate – Well E9		
Timeframe	Average Flowrate (L/min)	Maximum Flowrate (L/min)
July	N/A	N/A
August	N/A	N/A
September	N/A	N/A
October	N/A	N/A
November	N/A	N/A
December	N/A	N/A
2022	N/A	N/A

^{12A}There was no water taking for Well E9 during the reporting period, the well has been approved in the PTTW but has not been commissioned and is not online.

Table 13. Raw Water Monthly Average, Maximum Flow and Total Volume of any Combination of Wells (Well E7, Well E8 and Well E9) for 2022^{13A}

Raw Water Flow – Any Combination of Wells (Well E7, Well E8, Well E9)					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume ^{13A}	Maximum Flow (m ³ /day)	Percent of Allowable Volume ^{13A}	Total Volume (m ³)
January	1320.56	27.61%	2492.52	52.11%	35657.70
February	1472.07	30.78%	3020.52	63.15%	35329.54
March	1286.03	26.89%	2964.94	61.99%	34689.88
April	789.44	16.50%	2007.17	41.96%	23683.17
May	899.82	18.81%	2214.55	46.30%	27894.61
June	1170.54	24.47%	2898.95	60.61%	35116.07
July	1593.80	33.32%	3101.95	64.85%	41549.57
August	1330.44	27.81% ^{13B} /32.23% ^{13C}	2904.56	60.72% ^{13B} /70.36% ^{13C}	35284.48
September	1090.96	26.43%	2571.16	62.29%	31446.54
October	1001.24	24.25%	2602.30	63.04%	31038.48
November	988.62	23.95%	2375.70	57.55%	29658.66
December	1199.79	29.06%	2924.78	70.85%	37193.52
2022	1178.61	24.64%^{13B}/28.55%^{13C}	3101.95	64.85%^{13B}/75.14%^{13C}	398542.22

^{13A}Based on an allowable volume of 4,783.200 m³/day as stipulated in PTTW 8112-9CPNNW for the period of January 1, 2022 to August 4, 2022 and an allowable volume of 4,128.000 m³/day as stipulated in PTTW 6432-CC5LK7 for the period of August 4, 2022 to December 31, 2022

^{13B}For the period of January 1, 2022 to August 4, 2022

^{13C}For the period of August 5, 2022 to August 31, 2022

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 8112-9CPNNW and PTTW 6432-CC5LK7 for any combination of wells.