

TOWNSHIP OF DAWN-EUPHEMIA
2024
SUMMARY REPORT

February 5, 2025

Schedule 22 of O. Regulation 170/03 requires that a Summary Report be prepared for each year. It is to be prepared not later than March 31 and given to the members of the municipal council in the case of a drinking water system owned by a municipality. (section 22-2 (1))

The Summary Report must list the requirements of the Act, the regulations, the system's approval, and any order that the system failed to meet at any time during the period covered by the report and specify the duration of the failure. It must also, for each failure referred to above, describe the measures that were taken to correct the failure. (section 22-2 (2))

The Summary Report must also include the following:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

This will enable the system's owner to assess the capability of the system to meet existing and planned uses of the system. (section 22-2 (3))

If a report is prepared under subsection 1 for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the Municipality annually by March 31 . (section 22-2 (4))

John Collison O.R.O.

SUMMARY REPORT

The following is a summary performance report for the Township of Dawn-Euphemia Water Distribution System. This report is for the year 2024 and is based on Schedule 22 of the O. Regulation 170/03.

2024 Purchase From Enniskillen 115,215 m3

Month	Marthaville Road	Oil Heritage Road	Black Ash Road	Dawn Valley Road	Mandaumin Road	Cuthbert Road	Monthly Totals
January	3,167	1,910	2,585	20	560	48	8,290
February	2,910	1,734	2,427	26	618	48	7,763
March	3,110	1,747	2,680	0	597	78	8,212
April	3,114	1,656	2,838	48	581	78	8,315
May	3,846	2,225	4,047	19	959	90	11,186
June	3,613	1,828	3,609	25	864	54	9,993
July	4,647	2,368	4,485	17	974	52	12,543
August	3,481	1,858	3,375	23	685	43	9,465
September	3,475	1,980	3,544	22	799	61	9,881
October	3,431	2,070	3,621	23	844	69	10,058
November	3,293	2,002	3,578	12	801	26	9,712
December	3,625	2,078	3,349	25	708	12	9,797
Total	41,712	23,456	40,138	260	8,990	659	115,215

The annual amount of water (m3) purchased from Enniskillen is as follows:

2003	115,191,	2010	109,361	2017	122,359	2024	115,215
2004	118,491	2011	108,879	2018	110,980	2025	
2005	118,084	2012	111,963	2019	124,913	2026	
2006	107,685	2013	107,120	2020	136,957	2027	
2007	114,947	2014	117,565	2021	128,504	2028	
2008	113,322	2015	113,557	2022	131,929	2029	
2009	105,570	2016	124,575	2023	137,898	2030	

The total of accounted for water for 2024 was 101,573 m3 through meters and 2,000m3 flushing/fire = 103,573m3

This total includes water sold to customers in the Township of Dawn-Euphemia water distribution system and includes an estimate for water uses including fire flow, flushing, etc (2,000m3).

The water loss factor is 2.77 (%)

2004	5.30%
2005	4.80%
2006	6.20%
2007	4.30%
2008	5%
2009	5%
2010	5%
2013	7.90%
2014	16.1%*
2015	9.76%
2016	8.04%
2017	9.75%
2018	8.93%
2019	10.83%
2020	15.70%
2021	5.08%
2022	13.50%
2023	2.77%

2024	10.10%
2025	
2026	
2027	
2028	
2029	
2030	

* There was a large undetected service leak which may have contributed for as much as 10 % of the water loss for 2014.

HEALTH SAMPLES

The health samples include tests for the presence of E. coli, total coliforms, and background count. Any presence of E. coli and total coliform or background count > 200 are considered adverse and must be reported.

Free chlorine samples were also analyzed at each site. Sample results more than 0.2 mg/l are of concern and sample results less than 0.05 mg/l are considered adverse and must be reported.

Health samples are taken on a weekly basis at 4 locations within the Township of Dawn-Euphemia water distribution system as follows:

Township Office - Hamlet of Rutherford
Florence Community Centre - Hamlet of Florence
Shetland Library - Hamlet of Shetland
Enbridge Gas - Dawn Plant

An additional alternative sampling site, to be utilized in the event that access is not available to the primary locations is:

The former re-chlorination building at # 1876 Gould Road

Free Chlorine residuals ranged from 0.61 to 1.88 mg/L. Health samples indicated NO positive test for total coliforms.

All health samples for background count were less than 200. The HPC ranged from <10 to 20cfu/1ml.

OTHER SAMPLING

Quarterly trihalomethane samples are required to be taken in the water distribution system. The RAA (running annual average) for Trihalomethanes (THM) must not exceed 100 ug/L.

Trihalomethanes are formed by the reaction of chlorine with organic matter in the water.

Samples are usually taken in the remote part of the water system where they are most likely to develop.

Quarterly Trihalomethane samples were taken in 2024. Results were 45, 50, 66 and 68ug/L.

The 2024 RAA was $(45+50+66+68) \text{ divide by } 4 = 57.25\text{ug/L}$.

CHEMICALS USED IN TREATMENT PROCESSES

There were no chemicals used in the Dawn-Euphemia Water Distribution System in 2023. A 12% chlorine solution of sodium hypochlorite is used at the Enniskillen Water Reservoir and Pumping Station upstream of the water system.

EMERGENCY OR UPSET CONDITIONS

An emergency or upset condition would be a circumstance where the quality of water was threatened.

There were NO samples that Total Coliforms were present.

REVIEW OF WATER DISTRIBUTION SYSTEM

Lead and alkalinity sampling were carried out in the water distribution system in the spring and fall of 2024. All sampling results were within acceptable levels.

WATERLINE CONSTRUCTION AND MAINTENANCE

Feb.27/24 - 4" watermain valve repair 984 Shetland Road.

Mar.28/24 - 36 Month Risk Assessment Review.

Apr 3/24 - Spring Lead Testing.

Apr 11/24 - Emergency Control Group Exercise. Livestock Rollover with Water Element.

Apr 9 & 24/24 - Off-Site Inspection with James Pang (DWQMS)

Apr. 16,17,25,29,30 & May. 1-2/24 -Hydrants and Blowoffs flushed and tested.

May 2-3, 7, 13-14/24 - Cycle and Exercise all Mainline Valves in System

May. 21/24 - Petrolia Water Distribution Annual Advisory Committee Meeting

May 30 /24 - M.O.E. Inspection On-Site

Jul. 11/24 - New 3/4" Water Service Line 4670 Lambton Line.

Jul 26/24 - Water connection repair 6632 Bentpath Line (Shetland Park).

Aug.13/24 - Flushed Mill St & Florence Rd Hydrant in Florence.

Sept. 19/24 - 2 Emergency Service Line Repairs. 1798 Mandaumin Road & 6211 Kerby St, Florence.

Oct 24/24 - Hydrant Flushing Florence.

Oct. 7/24 - Fall Lead Testing

Oct. 30 & Nov. 12-14, 22, 25 & Dec.2/24 - Hydrant and Dead End Flushing.

As per section 22-2 (2) of O. Regulation 170/03, the list of requirements of the Act, the regulations, the system's approval, and any order that the system failed to meet at any time during 2024 including the duration at the failure must be included in the Summary report.

There were no times that the System failed to meet the requirements of the Act.

RECOMMENDED WORK

1) The Municipality has located the waterline system with Global Positioning to be retained, and utilized for locating. Constant updates are ongoing as needed. Appurtenances to the system will be mapped in the future.

2) The Municipality will be replacing all meters, and installing a remote reading system, a " Radio Read System", which will no longer require access to the property, but can be read by driving by at the roadway frontage.

As of Dec 31 2024, 95% of residential meters have been installed.

Remaining 5% are larger diameter meters, pit meters and meters in Municipal Buildings. They are to be replaced as the budget allows.