

TOWNSHIP OF DAWN-EUPHEMIA
2022
SUMMARY REPORT

March 17, 2023

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 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 2022 and is based on Schedule 22 of the O. Regulation 170/03.

2022 Purchase From Enniskillen m3

Month	Marthaville Road	Oil Heritage Road	Black Ash Road	Dawn Valley Road	Mandaumin Road	Cuthbert Road	Monthly Totals
January	2,425	2,269	3,590	0	970	61	9,315
February	2,041	1,733	2,500	0	838	40	7,152
March	3,411	2,668	1,955	0	1,462	60	9,556
April	2,625	2,129	4,739	0	1,122	40	10,655
May	3,651	2,816	5,255	0	1,488	80	13,290
June	3,731	2,764	5,421	0	1,442	70	13,428
July	4,289	2,716	5,407	0	1,316	90	13,818
August	4,479	2,823	5,212	0	1,350	70	13,934
September	3,045	1,968	3,342	0	837	50	9,242
October	3,412	2,301	3,896	0	955	60	10,624
November	3,271	2,177	3,816	0	964	60	10,288
December	3,707	2,154	3,814	0	912	40	10,627
Total	40,087	28,518	48,947	0	13,656	721	131,929

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

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

The total of accounted for water for 2022 was 114,115 m3

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.

The water loss factor is 13.5 (%)

2004	5.3
2005	4.8
2006	6.2
2007	4.3
2008	5
2009	5
2010	5
2011	8.25
2012	-3.04
2013	7.9
2014	16.1*
2015	9.76
2016	8.04
2017	9.75
2018	8.93
2019	10.83
2020	15.7
2021	5.08
2022	13.5

* 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 0.31 to 1.77 mg/L. Health samples indicated no presence of total coliforms. All health samples for background count were less than 200. The HPC ranged from <10 to 360cfu/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 2022. Results were 36, 54, 51 and 61ug/L. The 2022 RAA was (36+54+51+67) divide by 4 = 52ug/L.

CHEMICALS USED IN TREATMENT PROCESSES

There were no chemicals used in the Dawn-Euphemias Water Distribution System in 2022. 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 circumstances 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 2022. All sampling results were within acceptable levels.

WATERLINE CONSTRUCTION AND MAINTENANCE

March 15 /22 - Master Meter Head replacement SW Corner of Gould Rd & Aberfeldy Line.

Mar 23/22 - Lead and Alkalinity tests.

Apr 27/22 - New 1" Water Service Line, 1409 Cuthbert Road.

May 5/22 - Emergency Control Group Exercise - Cyber Attack - All Departments

May 11/22 - Petrolia Water Distribution Annual Advisory Committee Meeting

June 20 /22 - New 1" Water Service Line, 818 Oil Heritage Road.

June 22 /22 M.O.E. Inspection On-Site

June 22-23 & 27-29 /22 -Hydrants and blowoffs flushed and tested.

July 7-12 /22 - Cycle and Exercise all Mainline Valves in System

Aug 23/ 22 - Risk Assessment Review Meeting

October 6 / 22 - Lead and Alkalinity samples.

October 11 / 22 - Re-Sample Lead and Alkalinity samples. Due to Puralator missing pick-up.

Oct 21 & Nov 23-25 /22 -Hydrants and blowoffs flushed and tested

Nov 9/22 - New 1" Water Service Lines, 1841 Marthaville Road & 6552 Bilton Line (off Shetland Main)

Nov 14/22 - Off-Site Inspection with James Pang (DWQMS)

Nov 22/22 - New 1" water service 3791 Bentpath Line

Nov 22/22 - New 3/4" water service 1422 Gould Road

Nov 30 & Dec 5 /22 - Hydrants flushed and tested.

Dec 9 /22 - Repair leaking watermain 3911 Lambton Line (joint seperation)

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 2022 including the duration of 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.

Remaining meters replacements have commenced in 2023 with the goal of having most meters replaced by end of year 2023.