

**TOWNSHIP OF DAWN-EUPHEMIA
2018
SUMMARY REPORT**

March 18, 2019

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))

Paul Dalton 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 2018 and is based on Schedule 22 of the O. Regulation 170/03.

2018 Purchase From Enniskillen m3

Month	Marthaville Road	Oil Heritage Road	Black Ash Road	Dawn Valley Road	Mandaumin Road	Cuthbert Road	Monthly Totals
January	2,171	1,440	3,326	5	1,364	66	8,372
February	1,820	1,210	4,834	5	1,137	562	9,568
March	1,867	1,235	3,917	5	1,158	370	8,552
April	2,239	1,395	4,420	2	1,409	75	9,540
May	3,223	1,685	6,013		1,789	51	12,761
June	3,573	1,780	6,685		1,878	53	13,969
July	3,378	1,560	5,993		1,658	64	12,653
August	2,990	1,155	5,372		1,550	62	11,129
September	2,377	895	4,308		1,278	69	8,927
October	2,903	445	5,129		1,553	83	10,113
November	2,205	60	4,004		1,270	66	7,605
December	2,302	35	3,985		1305	71	7,698
Total	31,048	12,895	57,986	17	17,349	1,592	120,887

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	
2006	107,685	2013	107,120	2020	
2007	114,947	2014	117,565	2021	
2008	113,322	2015	113,557	2022	
2009	105,570	2016	124,575	2023	

*

The total of accounted for water for 2018 was 110,980 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

2004	5.3	2016	8.04
2005	4.8	2017.0	9.75
2006	6.2	2018	8.93
2007	4.3		
2008	5		
2009	5		
2010	5		
2011	8.25		
2012	-3.04		
2013	7.9		
2014	16.1*		
2015	9.76		

* 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
Hardware Store - Hamlet of Florence
Grain Elevator - Hamlet of Shetland
Union Gas - Dawn Plant

Two additional alternative sampling sites, to be utilized in the event that access is not available to the primary locations are as follows:

Shetland Library - Hamlet of Shetland
Edys Mills Machine Shop - Hamlet of Edys Mills

Free Chlorine residuals ranged from 0.65 to 1.58 mg/L. Health samples indicated one presence of total coliforms. Re-sampling results were returned to 0. All health samples for background count were less than 200. The HPC ranged from <10 to > 2000 on one occurrence.

OTHER SAMPLING

Quarterly trihalomethane samples are required to be taken in the water distribution system. The ODWQS for Trihalomethanes (THM) is 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.

Trihalomethane samples were taken in 2018. One sample taken in the water distribution system was above the required limits (25 ug/l to 44 ug/l). The result was .58 ug/l.

CHEMICALS USED IN TREATMENT PROCESSES

There were no chemicals used in the Dawn-Euphemia Water Distribution System in 2018. 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 were not within acceptable levels.

REVIEW OF WATER DISTRIBUTION SYSTEM

Lead and alkalinity sampling were carried out in the water distribution system in the spring and fall of 2018. All sampling results were within acceptable levels.

WATERLINE CONSTRUCTION AND MAINTENANCE

January 22 / 18 Colorimeters calibrated (Hach Canada)

April 4 - 9 / 18, - Flushed at all blowoff valve sites and tested for free chlorine

April 10 / 18 - Lead and alkalinity testing completed.

April 24/18 - Repaired leaking service at 1279 Shetland Road

May 2 / 18 - Expose Mainline install restrainers, intersection of Bentpath Line and Robinson Road, for County

May 8 / 18 - Exposed mainline install restrainers, Bentpath Line, 700 metres east of Cuthbert Road for County's

May 16 / 18 - Repaired service at 1279 Shetland Road

May 23 - 24 / 18 - Flush and service hydrants, chlorine residuals tested.

May 24 / 18 - DWQMS Off-Site Audit

May 28 / 18 - Repaired blowoff valve, Kent Line, west of Dawn Mills Road

June 28 / 18, - Install new 6" watermain to lower elevation to accommodate new bridge structure at Long's Creek

July 3 - 4 / 18 - Flushed and sample tested new watermain, Lambton Line at Long's Creek, Rutherford

July 10 / 18, - Assist Enniskillen Township and Coulter's with Master Meter Flow Testing

July 11 / 18 - Assist with tie-in of new watermain, Lambton Line at Long's Creek, Rutherford

September 24 - 26 /18 - Exercising all valves.

September 25 - 27 / 18 - Flush all blowoff sites and tested for free chlorine

September 27 - 29 / 17- Flush fire hydrants, test free chlorine.

October 3 / 18 - Lead and alkalinity testing

November 14 / 18 - Install 3/4" service to 1831 Oil Heritage Road

November 19 / 18 - Install 1" service to meter pit intersection of Gould Rd. and Lambton Line to serve 583 Gou

November 19 / 18 - Install 3/4 " service to 673 Florence Road

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 2018 including the duration of the failure must be included in the Summary report.

RECOMMENDED WORK

- 1) The Municipality has located the waterline system with Global Positioning to be retained, and utilized for locating. 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.