

ANNUAL COMPLIANCE REPORT FOR THE DUTTON DUNWICH WATER DISTRIBUTION SYSTEM FOR THE YEAR 2016

Prepared for the Municipality of Dutton Dunwich by Municipal Staff

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Summary Report Requirements

The 2016 summary Report for the Municipality of Dutton Dunwich Distribution system is submitted to satisfy the requirement to prepare and distribute a summary report of water quality as stipulated in Schedule 22 of O. Reg. 170/03.

As per O.Reg. 170/03, the summary report must:

- a. List the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water license and any orders applicable to the system that were not met at any time during the period covered by the report; and
- b. For each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- a. 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.
- b. A comparison of the summary to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water license or if the system is receiving all of its water from another system under an agreement, to the flow rates specified in the written agreement.

The information provided is for the purpose of enabling the owner of the system to assess the capacity of the system. This report covers the period from January 1, 2016 to December 31, 2016.

General Description of the Distribution System

The System operates under a Drinking Water Works Permit 047-201, Issue Number 3 January 19th, 2016. The Municipality of Dutton Dunwich Drinking Water License number is 047-101, Issue Number 2, January 19th, 2016.

This annual report is prepared in accordance with Schedule 22 of Ontario Regulation 170/03 by Municipal Staff.

The Distribution System is made up of main supply lines in sizes of 200mm, 250mm, 300mm and 350mm and distribution lines of 100 and 150mm. There is approximately a

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total of 253,320 meters of waterline. The system had 1,518 customers at the end of December 31, 2016 and serves a population of approximately 3,800 people.

Since December 2014, the Municipality of Dutton Dunwich has taken ownership and operation of the Iona Interconnect. The Iona Interconnect consists of two residual chlorine analyzers, one measuring residual of incoming water supply and one measuring outgoing water supply located at the boundaries of the Municipalities of Dutton Dunwich and Southwold on Talbot Line at Iona Road. This location also contains a flow meter, inter-connection valve and chlorine injection.

The system also contains a Water Storage Facility located in the Hamlet of Wallacetown. A continuous chlorine analyzer is located at the south boundary of the former Village of Dutton.

System Capacity

The system has a design capacity of 4,242m³ per day in accordance with calculations made by Wybe Clossen, P. Eng.

You will find attached and marked Schedule "A" a summary of the Annual Consumption for 2016 showing an average daily flow of 1036.36m³ down slightly from previous year of 1103.43m³.

Compliance

The Municipality of Dutton Dunwich had one (1) non-compliance report issued in 2016 with action required from the MOECC inspection. See Report – Schedule B. As per the action required in the non-compliance report, the water department purchased chlorine test strips which will be used during the super chlorination process. This non-compliance report is recorded as resolved and subsequently closed.

Water Testing

In accordance with the regulations the Municipality of Dutton Dunwich undertook a minimum of 16 tests per month for E.Coli, Total Coliforms. The regulations would require that we undertake a minimum of 12 tests per month. We are also required to take one Heterotrophic Plate Count (HPC) test every Week.

At the time of the above tests were taken, the municipality also tested the Free Chlorine Residuals.

During the year of 2016 there were no adverse Bacterial samples.

The Municipality's lead sampling is to be conducted as per Schedule "C". Lead samples were not conducted in 2016.

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The Municipality is also required to test on a quarterly basis for Trihalomethanes.

Water Loss

The municipality in 2016 had a line loss of 63,794.01m³ or approximately 13.02%. This is comprised of any water used for firefighting purposes, water used for line flushing to maintain 0.20mg/L of free chlorine in our distribution system.

Main Breaks

During the year of 2016 the Municipality experienced 6 main breaks. Three on Currie Road on February 12, March 14 and May 22; one at 11558 Willey Road on July 16, one at 244 Currie Road on July 21 and one on Miller Road on November 22.

New Line Installation

There was a section of 200mm AC watermain replaced with 200mm PVC approximately 512m in total length. A new water test station was also installed within this section.

A new 150mm PVC watermain was installed on Leitch Street from Mary Street to Miller Road. This watermain was installed to service a new subdivision. Three new hydrants and one new water station were also installed within this section.

Old lead water service lines were replaced from the watermain to the property lines on three streets in Dutton: Margaret Street, Annie Street and Wesley Street. New curb stops were also installed at this time.

Annual Report

You will find attached Schedule "D", a copy of the Annual Report has been posted on the Municipality's web site for viewing as well as copies have been made available to ratepayers at the Municipal Office.

Treatment Chemical Used

During the operation of the Water Distribution System Sodium Hypochlorite was introduced into the system at the Dutton Meter Pit and also the Iona Interconnect to ensure that the Free Chlorine residuals were maintained at a proper level.

No other chemicals were used to disinfect the water.

This report has been prepared on behalf of the Municipality of Dutton Dunwich by the following staff:

Tim Hansen, Manager of Water Operations

Laurie Spence Bannerman M.P.A., Chief Administrative Officer

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Employee Declaration

We the undersigned declare that the information provided in this report is true and that this report has been prepared to provide the Council of the Municipality of Dutton Dunwich the information in accordance with the requirements of O. Regulation 170/03.



Tim Hansen,
Manager of Water Operations



Laurie Spence Bannerman M.P.A
Chief Administrative Officer

I certify this report has been reviewed by Council and has been accepted by a resolution of Council dated: March 8, 2016



Laurie Spence Bannerman M.P.A.
Chief Administrative Officer