



Municipality of
Dutton Dunwich

Annual Compliance Report for the Dutton
Dunwich Distribution System for the year 2022

Prepared for the Municipality of Dutton Dunwich by Municipal Staff

ANNUAL COMPLIANCE REPORT FOR THE Dutton Dunwich Water Distribution System for the Year 2022

Summary Report Requirements

The 2022 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 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, 2022 to December 31, 2022.

General Description of the Distribution System

During this report period from January 1, 2022 to December 31, 2022 the System operates under a Drinking Water Works Permit 047-201, Issue Number 4 January 18th, 2021. The Municipality of Dutton Dunwich Drinking Water License number is 047-101, Issue Number 3, January 18th, 2021.

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 total of 256,500 meters of waterline. The system had 2,048 customers at the end of December 31, 2022 and serves a population of approximately 4,200 people.

ANNUAL COMPLIANCE REPORT FOR THE Dutton Dunwich Water Distribution System for the Year 2022

The System also contains 5 automatic flushers and approximately fifteen (15) sampling stations situated throughout the Municipality to assist with flows and testing procedures.

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. The Wallacetown Water Tower consists of one on-line chlorine analyzer measuring free chlorine residuals, two chlorine pumps (one active and one standby), and one flow meter measuring the towers outflow.

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 2022 showing an average daily flow of 1,290.66m³ down slightly from the previous year of 93.19m³.

Compliance

The Municipality of Dutton Dunwich had zero non-compliance issues in 2022 from the MECP inspection.

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 2022 there were no adverse Bacterial samples.

The Municipality's reduced lead sampling is to be conducted as per Schedule "B". Lead samples were last conducted in 2020. Therefore, Lead samples were not needed to be completed in 2022 as explained Schedule "B".

The Municipality is also required to test on a quarterly basis for Trihalomethanes and Haloacetic Acids (HAAs) and calculate the running annual averages from these tests.

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Changes to HHAs are indicated in Schedule "C" (attached). Results of the samples taken in 2022 including the running annual averages are shown in the attached Annual Report - Schedule "D".

Water Loss

The municipality in 2022 had a line loss of 30,005.19m³ or approximately 6.37%. This is comprised of any unmetered water used for firefighting purposes and water used for line flushing to maintain 0.20mg/L of free chlorine in our distribution system. Line loss for 2022 is down 1.59% from the previous year.

Main Breaks

During the year of 2022 the Municipality did experience one main break. Proper disinfection procedures were followed and documented as such.

New Line Installation

Some old service lines were replaced at the time repairs were needed i.e., leaks.

In 2022 there was approximately 620 metres of 6" ductile iron watermain replaced with 8" PVC. This replacement took place on Currie Road in the town of Dutton, north of John Street continuing north to Pioneer line. All water services, valves and fire hydrants were replaced along this stretch as well. The purpose of this watermain upgrade was to replace old infrastructure and increase the watermain sizing to assist with flows for any future development in this core area.

There was also approximately 445 meters of 6" PVC watermain installed on Harvest Lane and Titan Court, and approximately 135m of 2" watermain installed in Titan Court. These installs were to complete the final stage of this new subdivision in Dutton. Water services, mainline valves and fire hydrants were also installed at this time.

There was approximately 102m of 6" watermain installed on Bouw Place located within the Highland Estate subdivision in Dutton which began construction in 2017 to 2018. This install completes 6" watermain stubbed into Bouw Place for continuing development. One fire hydrant was installed at the end of this line.

There was 4 newer style sampling stations installed in 2022. These sampling stations replaced older deteriorating models and will provide cleaner, smoother operations during sampling procedures.

Annual Report

You will find attached Schedule "D", a copy of the Annual Report for 2022 which has also been posted on the Municipality's web site for viewing as well as copies have been made available to ratepayers at the Municipal Office.

**ANNUAL COMPLIANCE REPORT FOR THE
Dutton Dunwich Water Distribution System for the Year 2022**

Treatment Chemical Used

During the operation of the Water Distribution System Sodium Hypochlorite was introduced into the system at the Wallacetown Water Tower site. Sodium Hypochlorite was also used at 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:

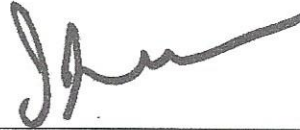
- Tim Hansen, Manager of Water Operations

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 Tracy Johnson, CAO/Treasurer.

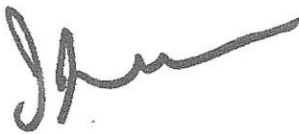


Tim Hansen, Manager of Operations



Tracy Johnson CAO/Treasurer

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



Tracy Johnson CAO/Treasurer

**ANNUAL COMPLIANCE REPORT FOR THE
Dutton Dunwich Water Distribution System for the Year 2022**

SCHEDULE A – SUMMARY OF ANNUAL WATER CONSUMPTION

2022 Water Department							
Figures	GL					TOTAL	Cu M
	03-4200-0008 WATER SALES	03-4200-0006 SERVICE CHARGE	03-4100-0020 SEWAGE	03-4100-0003 CAPACITY	03-4200-0009 LATE PAY		
MONTH							
JANUARY	-81.20	- 144.31	- 98.00		- 2,091.08	- 2,414.59	- 35.00
FEBRUARY	-746.64	- 1,197.25	- 84.68		30.36	- 1,998.21	- 321.83
MARCH	- 227,760.84	- 91,032.79	- 83,972.68		- 455.84	- 403,222.15	- 93,344.61
APRIL	- 292.80	- 808.80	432.16		12.02	- 657.42	- 120.00
MAY	- 152.70	- 14.76	232.58		- 996.19	- 931.07	- 62.58
JUNE	- 260,856.45	- 92,847.67	- 94,736.44		14.32	- 448,426.24	- 106,908.38
JULY	- 358.68	- 326.65	- 172.28		- 498.70	- 1,356.31	- 147.00
AUG	60,591.48	19,965.75	19,398.08		4.52	99,959.83	24,832.57
Sept	- 325,936.10	- 92,983.03	- 123,613.20		-	- 542,532.33	- 133,580.37
Oct	- 1,000.77	- 197.29	- 362.08		12.07	- 1,548.07	- 410.15
Nov	- 453.03	- 305.82	- 73.00		-	- 831.85	- 185.67
Dec	- 258,351.30	- 93,877.31	- 156,347.52		-	- 508,576.13	- 105,881.68
Total	- 1,015,399.03	- 353,769.93	- 439,397.06		- 3,968.52	-1,812,534.54	- 416,164.69
Less 2021 Unbilled	-	-	-			-	-
Plus 2022 Unbilled	- 60,850.12	- 21,236.57	- 19,582.04	- 10,598.74	-	- 112,267.47	- 27,785.44
Total	- 1,076,249.15	- 375,006.50	- 458,979.10		- 3,968.52	-1,924,802.01	- 443,950.14
Adjustment to unbilled	- 60,850.12	- 21,236.57	- 19,582.04		-	- 112,267.47	
NET WATER INCOME							
Unbilled							
Meters read December 10th							
Therefore 21 days remaining unbilled from December							
Mar-22	-260,786.24	-91,013.86	-83,923.04	-45,423.17		-481,146.31	
Prorated 21/90 (est)	-60,850.12	-21,236.57	-19,582.04	-10,598.74		-112,267.47	
	-82,086.69						

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Dutton Dunwich Water Distribution System for the Year 2022**

West Elgin							
	Graham Rd			Marsh Line		Total	
	Rate	m ³	Total	m ³	Total	m ³	Total
Jan	1.01	20,238.00	20,440.38	125.00	126.25	20,363.00	20,566.63
Feb	1.01	12,806.00	12,934.06	104.00	105.04	12,910.00	13,039.10
Mar	1.01	15,230.00	15,382.30	163.00	164.63	15,393.00	15,546.93
Apr	1.01	19,684.00	19,880.84	155.00	156.55	19,839.00	20,037.39
May	1.01	24,151.00	24,392.51	170.00	171.70	24,321.00	24,564.21
Jun	1.01	26,369.86	26,633.56	207.80	209.88	26,577.66	26,843.44
Jul	1.06	28,609.00	30,325.54	190.00	201.40	28,799.00	30,526.94
Aug	1.06	25,560.00	27,093.60	151.00	160.06	25,711.00	27,253.66
Sep	1.06	10,754.00	11,399.24	367.00	389.02	11,121.00	11,788.26
Oct	1.06	20,446.00	21,672.76	87.00	92.22	20,533.00	21,764.98
Nov	1.06	19,653.00	20,832.18	82.00	86.92	19,735.00	20,919.10
Dec	1.06	20,047.00	21,249.82	92.00	97.52	20,139.00	21,347.34
		243,547.86	252,236.79	1,893.80	1,961.19	245,441.66	254,197.98
Southwold							
	Rate	m ³	Total				
Jan	1.78	18,612.00	33,129.36		33129.36		
Feb	1.78	17,027.00	30,308.06		30308.06		
Mar	1.78	18,608.00	33,122.24		33122.24		
Apr	1.78	10,230.00	18,209.40		18209.4		
May	1.78	15,425.25	27,456.94		27456.94		
Jun	1.78	33,243.25	59,172.98		59172.98		
Jul	1.78	3,184.75	5,668.86		5668.86		
Aug	1.78	17,808.00	31,698.24		31698.24		
Sep	1.78	36,069.00	64,202.82		64202.82		
Oct	1.78	19,624.00	34,930.72		34930.72		
Nov	1.78	18,010.00	32,057.80		32057.8		
Dec	1.78	17,808.00	31,698.24		31698.24		
		225,649.25	401,655.66		401655.7		
Total \$	655,853.64					-	
Total m ³	471,090.91						
	685739.47						

**ANNUAL COMPLIANCE REPORT FOR THE
Dutton Dunwich Water Distribution System for the Year 2022**

F2022				
Line Loss				
Total Water Purchases			Cubic meters	
West Elgin	Tab B		245,442	
Iona Interconnect			225,649	
Total Consumption			<u>471,091</u>	cubic meters
Total Water Sales	Tab A	-1,076,249.15		
Water Rate		2.44		
Total water sold in cubic meters			- 441,085.72	cubic meters
Total Water Sold			- 441,085.72	cubic meters
<u>Line Loss Calculation</u>				
Purchases			471,090.91	cubic meters
Less:				
Sold			- 441,085.72	cubic meters
Construction Use			-	cubic meters
Less: Auto Flushers				cubic meters
Less: Fire Calls				cubic meters
Less: Fire Training			-	cubic meters
Pool			-	cubic meters
Roads Usage				cubic meters
Roads Sweeper Usage			-	cubic meters
Loss			<u>30,005.19</u>	cubic meters
% of line loss			6.37%	
Daily Consumption			1,290.66	

ANNUAL COMPLIANCE REPORT FOR THE Dutton Dunwich Water Distribution System for the Year 2022

SCHEDULE B – LEAD SAMPLING



Ministry of the Environment
Drinking Water System Inspection Report

SUMMARY OF BEST PRACTICE ISSUES AND RECOMMENDATIONS

This section provides a summary of all best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the Inspection report. Best Management Practices are recommendations and not mandatory requirements, but may lead to safe drinking water for the consumer.

In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following practices and consider measures to implement them so that all drinking water systems continuously improve their processes.

1. The following issues were also noted during the inspection:

Best Management Practices and Recommendations are provided by the ministry to improve the owner/operator's ability to protect public health and ensure continuous improvements in the overall operation and maintenance of the drinking water system.

During the inspection, it was found that a plan for continuous improvement in overall operations and maintenance has been enhanced through regular strategic process evaluations conducted by the Owner/Operating Authority.

The Owner/Operating Authority has been committed to the implementation of continuous improvements in the overall operation and maintenance of the drinking water system.

Recommendation:

1/ It is very important for the Owner to be aware of the following provisions in the Safe Drinking Water Act of their roles and responsibilities under the Standard of Care for Municipal Drinking Water Systems section 19 proclaimed in May 2007 that will come into force on December 31, 2012.

Please reference "Taking Care of your Drinking Water; A Guide For Members of Municipal Council" at the following link:

http://www.portal.gov.on.ca/drinkingwater/dw_el_prd_043831.pdf

2/ The Municipality of Dutton-Dunwich should continue the ongoing development and implementation of a comprehensive operations/maintenance manual and record keeping program.

Detailed operations manuals are essential for the safe and reliable operation of any facility. By maintaining comprehensive detailed operations manuals and maintenance records, the owner/operator may realize multiple benefits such as efficiency in:

- responding to adverse water quality issues
- reducing operational cost; after hour call-outs and emergency response
- reducing the possibility of interrupted water services
- reducing the possibility of water system contamination
- providing historic data and trending
- increasing the knowledge of facility operators
- increasing awareness to problematic equipment breakdowns
- identifying the need for staff training relevant to the systems being operated
- provide critical information regarding budgeting for operations; staffing; capital cost etc.
- identifying any deficiencies with the current operations of the facility or distribution system.

3/ It should be noted that the Municipality of Dutton-Dunwich currently qualifies to conduct sampling as per Schedule 15, 1-6, (10) which states: "When the requirements for taking samples set out in clauses (3) (a) and (b) and subsection (8) cease to apply under subsection (9) to a drinking water system, the owner

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Ministry of the Environment
Drinking Water System Inspection Report

(a) to test for total alkalinity and for pH during each of the periods described in subsection (5) in every 12-month period; and

(Samples for pH and alkalinity must be collected during each 12 month sampling period (i.e. December 15 – April 15 and June 15 – October 15) based on the population served by the system and the number of distribution locations required under the “reduced” sampling table included in O. Reg. 170/03 section 15.1-5 of Schedule 15).

(b) to test for lead during each of the periods described in subsection (5) in every third 12-month period.”

(Samples for lead must be collected every third 12 month period (i.e. December 15 – April 15 and June 15 – October 15) based on population and the number of distribution locations referenced in the “reduced” sampling table included in O. Reg. 170/03 section 15.1-5 of Schedule 15).

**ANNUAL COMPLIANCE REPORT FOR THE
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SCHEDULE C – HALOACETIC ACIDS REPORT REQUIREMENTS – JAN 2020

Ministry of the Environment,
Conservation and Parks

Ministère de l'Environnement, de la
Protection de la nature et des Parcs

Compliance, Promotion
and Support Branch
2nd floor
40 St. Clair Ave West
Toronto ON M4V 1M2

Direction de la promotion de la conformité
et du soutien
2^{ème} étage
40, avenue St. Clair Ouest
Toronto (Ontario) M4V 1M2



December 10, 2019

TO: Drinking Water System Owner/Operators

RE: Haloacetic Acids Reporting Requirements Effective January 1, 2020

Drinking Water System Owners and Operators,

As a follow up to our communication from May 2018, the purpose of this email is to remind you that the Ontario Drinking Water Standard for Haloacetic Acids (HAAs) comes into effect January 1, 2020. The standard will be 0.08 mg/L (80 µg/L) and is expressed as a running annual average (RAA).

As of January 1, 2017, Schedule 13-6.1 in O.Reg. 170/03 requires owners and operating authorities of municipal residential drinking water systems and non-municipal year-round drinking water systems to take samples quarterly and have them tested for HAAs. Samples must be taken from a location that is likely to have an elevated potential for the formation of HAAs. On January 1, 2020, this section will be amended to include directions on how to calculate RAAs.

In accordance with Schedules 16-6 and 16-7 of O. Reg. 170/03, the owner or operating authority is responsible for calculating the RAA and reporting an adverse test result by written notice using the Notice of Adverse Test Results and Issue Resolution form within 7 calendar days of the completion of the quarter that produced the adverse test result for HAAs.

If licensed laboratories do not meet the calculation exemption requirements outlined in Schedule 16-6 (3.2) of O. Reg. 170/03, they are responsible for calculating the RAA and reporting an adverse test result by written notice within 7 calendar days of the completion of the quarter that produced the adverse result for HAAs. To clarify how to calculate RAA, please refer to the Trihalomethane and HAA sampling and reporting requirements bulletin.

The ministry would like to clarify the reporting requirements for HAAs effective January 1, 2020. If an owner/operator calculates the RAA for HAAs on or after January 1, 2020

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and the result of the calculation exceeds the standard, the result must be reported as an Adverse Water Quality Incident.

Questions can be directed to: drinking.water@ontario.ca.

Regards,



Scott McCharles
Director, Compliance, Promotion and Support Branch
Ministry of the Environment, Conservation and Parks



Municipality of
Dutton Dunwich

MUNICIPALITY OF DUTTON DUNWICH

Council Meeting

Resolution Number 2023.07.03

Date: March 8, 2023

Moved by: H. Dryfhout

Seconded by: K. Loveland

THAT the Council of the Municipality of Dutton Dunwich receives the report of the Water Operations Manager titled "Monthly Activity Report - February 2023", dated March 8, 2023 for information; and

THAT Council receives the 2022 Annual Compliance Report for information.

Motion:CARRIED



Municipality of
Dutton Dunwich

MUNICIPALITY OF DUTTON DUNWICH

Council Meeting

Resolution Number 2023.08.31

Date: March 22, 2023

Moved by: H. Dryfhout
Seconded by: C. Pemberton

WHEREAS Section 22 of O. Reg 170/03 requires distribution of the summary report; and
FURTHER THAT the Council of the Municipality of Dutton Dunwich confirms that it received the 2022 Annual Compliance Report at the March 8, 2022 Council meeting as part of the Water Operations Manager "Monthly Activity Report - February 2023" for information.

Motion:CARRIED

ANNUAL COMPLIANCE REPORT FOR THE Dutton Dunwich Water Distribution System for the Year 2022

Schedule D – DRINKING WATER SYSTEM REGULATIONS O.Reg 17/03



ANNUAL REPORT

Drinking-Water System Number:	220002967
Drinking-Water System Name:	Dutton/Dunwich Distribution System
Drinking-Water System Owner:	The Corporation of the Municipality of Dutton/Dunwich
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2022 to December 31, 2022

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>The Municipality of Dutton/Dunwich 199 Currie Rd., Dutton, ON N0L 1J0</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">8</div></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; display: inline-block; width: 80px; height: 20px;"></div></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
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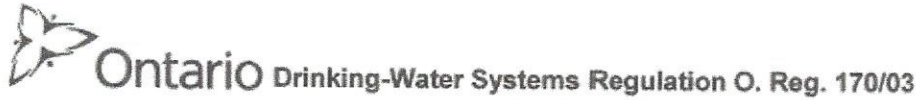
Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive a portion of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Not Applicable (N/A)	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all or part of its drinking water?
Yes [] No []

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Dutton Dunwich Water Distribution System for the Year 2022**



Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method

Describe your Drinking-Water System

The Dutton/Dunwich Distribution System is classified as a large municipal system, with approximately 2050 customers, serving the former Village of Dutton, the former hamlets of Wallacetown, Iona and Iona Station and a large portion of the rural area of the former Township of Dunwich.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

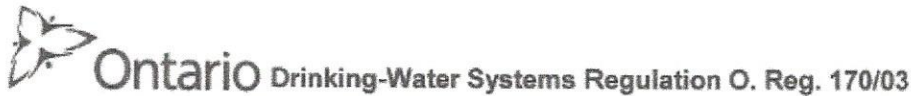
Please provide a brief description and a breakdown of monetary expenses incurred

There were a few leaks that occurred at the property lines (curb stops).
 There was one water main break in 2022 which occurred on December 31, 2022 on King St in Wallacetown.
 Municipal backflow prevention program started in 2010 and is still ongoing.
 Majority of old lead service lines have been replaced throughout the Municipalities Distribution System. Any remaining lead service lines will be replaced on an ongoing basis as they are discovered during repairs etc.
 Installation of new radio read meters continued throughout the entire Municipality. Once completed the Municipalities water department will be able to complete water meter reading therefore no longer needing to contract this service out.
 Replaced 4 older model rusting sampling stations with newer ones with stainless steel internal plumbing for better, cleaner operation.
 New SCADA system upgrade to both Hardware and Software.
 Replaced approximately 620M of 6" DI watermain on Currie Rd in Dutton with 8" PVC
 Also replaced all water services, hydrants, valves and added 1 test station included with this project.

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
N/A	N/A	N/A	N/A	N/A	N/A

**ANNUAL COMPLIANCE REPORT FOR THE
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Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	N/A				
Treated	N/A				
Distribution	208	0 - 0	0 - 0	52	<10 - 30

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

		Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity		N/A		
Free Chlorine		1,162	.50-1.63	mg/L
Continuous Free Cl Monitoring	W.Tower	8760	0.03-5.00	mg/L
	Iona In	8760	0.00-5.00	
	Iona Out	8760	0.00-5.00	

NOTE: For continuous monitors use 8760 as the number of samples.

*There were a few instances in 2022 when the water distribution free chlorine residual was recorded below 0.05mg/L by the continuous online analyzers. Each of these events coincided with operational alarm testing, loss of power or equipment failure ect. and did not reflect the actual free chlorine residual maintained in the distribution system.

NOTE: Record the unit of measure if it is not milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
N/A				

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	N/A	N/A	ug/L	N/A
Distribution	N/A	N/A	ug/L	N/A

**ANNUAL COMPLIANCE REPORT FOR THE
Dutton Dunwich Water Distribution System for the Year 2022**



Ontario Drinking-Water Systems Regulation O. Reg. 170/03

pH	6	7.32-8.24		0
Alkalinity	6	94-100	mg/L	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Total Trihalomethanes (THM's) (NOTE: show latest annual average) Running Annual Average - 41.5 ug/L	Feb 1	41	ug/l	0
	May 3	31		
	Aug 9	51		
	Nov 15	43		

Haloacetic Acids (HAA's) Running Annual Average - 23.1 ug/L	Feb 1	16.7	Ug/L	0
	May 3	17.9		
	Aug 9	32.9		
	Nov 15	24.9		

**ANNUAL COMPLIANCE REPORT FOR THE
Dutton Dunwich Water Distribution System for the Year 2022**



Municipality of
Dutton Dunwich

MUNICIPALITY OF DUTTON DUNWICH

Council Meeting

Resolution Number 2023.02.03
Date: January 25, 2023

Moved by: K. Loveland
Seconded by: A. Drouillard

THAT the Council of the Municipality of Dutton Dunwich receives the report of the Water Operations Manager titled "Drinking Water System Annual Report 2022", dated January 25, 2023 for information.

Motion: CARRIED