



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

February 21st, 2025

Jeff Carswell
CAO
Corporation of the Township of Southwold
35663 Fingal Line
Fingal, ON N0L 1K0

Re: Safe Drinking Water Act, O. Reg. 170/03 Section 11 and Schedule 22 Summary Report

Dear Mr. Carswell,

Attached is the 2024 Summary Report for the Southwold Distribution System for January 1st to December 31st, 2024. This report is completed in accordance with Section 11 and Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act.

This Summary Report is to be provided to the members of the Southwold Municipal Council. Please ensure this distribution by March 31, 2025.

Section 12 of O. Reg. 170/03, requires the Annual Report required under Section 11 of O. Reg. 170/03 and the Summary Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the township, or at a location that is reasonably convenient to the users of the water system.

Please feel free to contact me should you require any additional information regarding these reports. I can be reached at 519-870-7841.

Sincerely,

Matthew Belding
Process and Compliance Technician

c.c. Sam Sianas, OCWA's Regional Hub Manager
Vitaliy Talashok, OCWA's Senior Operations Manager
Maegan Garber, OCWA's Safety, Process and Compliance Manager
Aaron VanOorspronk, Director of Infrastructure & Development Service (Southwold)
Kevin Goodhue, Water/Wastewater & Compliance Superintendent (Southwold)

Southwold Distribution System

Waterworks # 210001362
System Category – Large Municipal Residential

Annual Water Report

Prepared For: The Corporation of the Township of Southwold

Reporting Period of January 1st – December 31st, 2024

Issued: Feb 21st, 2025

Revision: 0

Operating Authority:



This report has been prepared to satisfy the annual reporting requirements in O.Reg 170/03 Section 11 and Schedule 22.

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Revision History

Date	Revision #	Revision Notes
02-21-2025	0	Report Issued

Report Availability

This system does not serve more than 10,000 people and the annual reports will be available to residents at the Township of Southwold Municipal Office. Notification will be at the Municipal Office and copies provided free of charge, if requested. The Southwold Municipal Office is located at, 35663 Fingal Line in the Town of Fingal.

Compliance Report Card

Compliance Event	Date	# of Events
Ministry of Environment Inspections	07-30-2024	1
Ministry of Labour Inspections	N/A	0
QEMS External Audit	10-18-2024	1
AWQI's/BWA	N/A	0
Non-Compliance	N/A	0
Community Complaints	Various	6
Spills	N/A	0
Watermain Breaks	N/A	0

System Process Description

Distribution

The Southwold Distribution System receives water from the St. Thomas Area Secondary Water Supply System through interconnection points:

- Talbot Line and Ford Line
- Talbot Line and Ford Line feeding Talbotville
- Wonderland Road and Clinton Line

The St. Thomas Area Secondary Water Supply System receives water from the Elgin Area Primary Water Supply System, where the raw water from Lake Erie is treated to supply potable water to the systems it serves.

The Southwold Distribution System is monitored at the Shedden Re-Chlorination Facility on Talbot Line. At this facility the distribution system chlorine residuals are monitored (inlet and outlet) and increased if necessary. The facility has two chlorine pumps (duty/standby) to increase the chlorine residual based on set points and flow in the distribution system. This facility also provides a potable water fill station for consumers.

The distribution system contains pressure reducing valves, sample stations, hydrants and auto flushers throughout the system in order to monitor distribution pressures and water quality.

The Southwold Distribution System also provides water to:

- Dutton Dunwich Distribution System at Talbot Line and Iona Road interconnect
- St. Thomas Distribution System on Fingal Line at the St. Thomas/Southwold border
- Middlesex Centre Distribution System at Southdel Drive

Treatment Chemicals

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Secondary Disinfection	Jutzi

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
There were no adverse water quality incidents reported during the reporting period.						

Non-Compliance

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliance issues reported during the reporting period.				

Non-Compliance Identified in a Ministry Inspection:

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliance issues noted during the inspection.				

The Southwold Distribution System was inspected on July 30th, 2024 by Provincial Officer, Meghan Morgan of the Ministry of Environment, Conservation and Parks (MECP).

The routine MECP inspections have an Inspection Rating Record, which evaluates the system to provide information for the owner/operator on areas that need to be improved. The particular areas that were evaluated for the Malahide Distribution System were: Treatment Processes, Operations Manuals, Logbooks, Certification and Training, Water Quality Monitoring, Distribution System, and Reporting and Corrective Actions. The 2024 inspection report identified no non-compliances and thus received an Inspection Rating Record of 100%.

Flows

In 2024, the total flow through the Southwold Distribution System was 686,589 m³. This is an increase of 4.7% compared to 2023. The average daily flow to the Southwold Distribution System in 2024 was 1,895m³/d.

The following table provides an overview of the monthly flow totals for the Southwold Distribution System. Appendix A contains monthly flow readings from various meters throughout the distribution system.

Table 1: Southwold Distribution Flows

MONTH	TOTAL (m ³)	Average Daily Flow (m ³ /d)
January	52,947	1,708
February	46,990	1,678
March	51,723	1,668
April	45,684	1,523
May	58,811	1,897
June	60,681	2,023
July	88,379	2,851
August	65,101	2,100
September	77,094	2,570
October	50,933	1,643
November	40,996	1,367
December	47,249	1,524
Average Daily	-	1,895
Annual Total	686,589	-

The flow is measured at the Shedden Re-Chlorination Facility. Below is a summary of flow through this facility.

Table 2: Shedden Re-chlorination Facility Flows

Month	Total Monthly Flow (m ³)	Average Daily Flow (m ³ /d)	Maximum Daily Flow (m ³ /d)
January	24980.5	805.8	895.5
February	23857.4	822.7	895.5
March	25323.0	816.9	932.5
April	24626	820.9	893.5
May	25772	831.4	1002.0
June	25377	845.9	1230
July	27383.9	883.4	1242.5
August	27689.7	893.2	1840
September	27169.3	905.6	1458.0
October	25793.3	832.0	1056.5
November	24501	816.7	918
December	25222	813.6	913
Annual Total	307,695.1	-	-
Average Daily	-	840.7	-
Maximum Day Flow	-	-	1840.0

Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E.Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Distribution Water	268	0	0	0	0	<10	<30

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Free Chlorine Residual, DW Field (mg/L)	418	0.20	1.21

Summary of Lead Testing:

Schedule 15.1 sampling is required under O.Reg 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
		Minimum	Maximum		
Alkalinity (mg/L)	6	93	126	N/A	N/A
pH	6	7.14	7.21	N/A	N/A
Lead (ug/l)	N/A	N/A	N/A	10	0

Organic Parameters

These parameters are tested quarterly as a requirement under O.Reg 170/03.

Distribution Water	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Trihalomethane: Total (ug/L) Annual Average-DW	2024	40.25	100	0	0
Haloacetic Acids: Total (ug/L) Annual Average-DW	2024	19.88	80	0	0

MAC = Maximum Allowable Concentration as per O.Reg 169/03

Additional Legislated Samples

There is no additional sampling required in the Southwold Distribution System.

Major Maintenance Summary

Distribution Maintenance

Details
<ul style="list-style-type: none"> - Replaced controller on Thomas Rd. Autoflusher - Watermain break repairs - Replace rechlor meter chamber high level float and junction box - New meter pit installed - Hydrant repairs - Watermain commissioning - Maintenance on PRV at John Wise/Fingal

Appendix A

Summary of flow volumes in the Southwold Distribution System (values in m³ unless indicated)

Ontario Clean Water Agency – Southwold Distribution System – 2023 Annual Water Reports

Month	Talbot & Ford (Southwold Interconnect Chamber)	Talbot & Ford (Talbotville Chamber)	Wonderland & Clinton (Clinton Line Interconnect Chamber)	Other	Talbot & Iona	Fingal Line	TOTAL	Average Daily Flow
					(Iona Chamber)	(St. Thomas Chamber)		(m ³ /d)
January	51,450	6,025	11,282	2,684	-18,610	116	52,947	1,708
February	45,970	5,445	10,109	2,799	-17,409	76	46,990	1,516
March	49,796	6,060	11,200	3,174	-18,610	103	51,723	1,668
April	46,020	5,190	9,671	2,728	-18,010	85	45,684	1,474
May	55,252	6,485	12,304	3,565	-18,960	165	58,811	1,897
June	56,657	6,655	12,409	3,299	-18,460	121	60,681	1,957
July	77,052	8,960	16,947	3,744	-18,610	286	88,379	2,851
August	61,555	7,215	13,721	3,145	-20,699	164	65,101	2,100
September	74,869	6,900	12,778	3,121	-20,735	161	77,094	2,487
October	48,265	6,400	11,886	3,163	-18,995	214	50,933	1,643
November	40,189	5,880	9,800	3,006	-18,010	131	40,996	1,322
December	45,439	5,335	10,100	2,611	-16,330	94	47,249	1,524
Annual Total	652,514	76,550	142,207	37,039	-223,437	1716	686,589	1,846