

# Monthly Operations Report

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for the Municipality of Casselman's Water and  
Wastewater Systems

March 2025



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

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A decorative graphic in the bottom right corner of the page. It features a light blue semi-circle at the top, representing a sun or a rising arc, and several horizontal, wavy lines below it, representing water or waves. The lines are also light blue and have a soft, flowing appearance.

## SECTION 1 – MONTHLY OPERATIONS REPORT CARD

## Operations and Compliance Reliability Indices

Legend					
✓	●	▲	✗	Y/N	N/A
Achieved	On Target	Caution	Not Achieved	Yes/No	Not Applicable

	Target	Current Month	Comments
<b>Health &amp; Safety</b>			
Number of Incidents	0	●	
Actual Result		0	
<b>Drinking Water</b>			
Inspection Ratings (YTD)	100 %	●	
Actual Result		100 %	
AWQI's	0	●	
Actual Result		0	
Number of Non-Compliances	0	●	
Actual Result		0	
Number of Water Main Breaks	0	●	
Actual Result		0	
Number of Complaints	0	●	
Actual Result		0	
Water Main Flushing	0	●	
Target Achieved		Y	
<b>Wastewater</b>			
Number of Non-Compliances	0	●	
Actual Result		0	
Number of Bypasses	0	●	
Actual Result		0	
Number of Sanitary Sewer Back-ups	0	●	
Actual Result		0	
Sanitary Collection System Flushing	0	●	
Target Achieved		Y	
<b>Preventive Maintenance</b>			
Work Orders Completed	>95%	●	
Target Achieved		Y	

## SECTION 2 – FACILITY LISTING

### Water Treatment & Distribution

Facility	Type
5971 - Casselman Water Treatment Plant	1 WTP (Actiflo Process)
1553 - Casselman Water Distribution System	1 Water Storage Tower + Water Distribution System

### Wastewater Treatment & Collection

Facility	Type
1501 - Casselman Wastewater Treatment Plant	3 Facultative Lagoon Cells MBBR (Moving Bed Biofilm Reactor)
1501 - Casselman Wastewater Collection System	6 Sewage Pumping Stations + Wastewater Collection System

## SECTION 3 – COMPLIANCE

There were no compliance issues to report for Casselman's water and wastewater treatment systems.

The most recent MECP inspections are listed below:

Location	Inspector	Inspection Rating (%)	Date
Casselman Water	Jean-Francois Durocher	100%	February 5, 2025
Casselman Sewage	Jean-Francois Durocher	Awaiting Report	November 19, 2024

There are no outstanding actions required from any recent MECP inspections.

## **SECTION 4 – FACILITY PERFORMANCE**

Please see the Water & Wastewater Performance Assessment Reports attached in Appendix A.

## **SECTION 5 – DRINKING WATER QUALITY MANAGEMENT SYSTEM (DWQMS)**

OCWA was re-accredited as the Operating Authority for Casselman's Drinking Water System on January 24, 2023.

## **SECTION 6 - MAINTENANCE / CAPITAL / ADDED VALUE**

### Water Treatment & Distribution

- Responded to three after-hours call-in alarms
- Cleaning of the raw water intake pipe and raw water tank was completed by divers
- Replaced diaphragm and tubing on potassium permanganate chemical pump
- Completed maintenance on polymer pump and coagulant pump
- Annual maintenance completed on chlorine gas disinfection system
- Repaired raw water pump hose
- Performed clean outs of supernatant and waste tanks at the WTP

### Wastewater Treatment & Collection

- Responded to two after-hours call-in alarms
- Lagoon discharge continued through March
- Re-programmed modem at SPS #1 to resolve communications issues
- Pump #1 at SPS #1 was clogged; pulled and cleaned to remove rags/debris
- Serviced Blower #1 & #2 at lagoon
- Cleaned wet well at SPS #6
- Replaced Flygt Cloud panel screen at SPS #3

### Preventive Maintenance Plan (PMP) Work Order Summary

All required work orders were completed. Please refer to the summary reports attached in Appendix B.

## SECTION 7 – COMPLAINTS

Facility	Date	Description
None to report		

## SECTION 8 – RECOMMENDATIONS / GENERAL COMMENTS

### General

- 5 locates were completed in March.

### Water Treatment & Distribution

- Capital/Major Maintenance projects approved for 2025 are underway.
- Operations staff continued to work with Dr. Dallala and EVB on behalf of the Municipality.

### Wastewater Treatment & Collection

- Capital/Major Maintenance projects approved for 2025 are underway.
- Excessive rag build up is an ongoing issue in the sewage collection system

# Appendix A

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## Performance Assessment Reports



# ONTARIO CLEAN WATER AGENCY PERFORMANCE ASSESSMENT REPORT

**MUNICIPALITY:** MUNICIPALITY OF CASSELMAN  
**PROJECT:** CASSELMAN DRINKING WATER SYSTEM  
**DESCRIPTION:** SURFACE WATER TREATMENT PLANT  
CHEMICALLY ASSISTED FILTRATION

**YEAR:** 2025  
**WATER SOURCE:** NATION RIVER  
**DESIGN CAPACITY:** 3182 m3/d  
**WORKS NUM.:** 210001219

MONTH	SYSTEM FLOWS (TREATED)			TREATED		DISTRIBUTION		RAW					TREATED								DISTRIBUTION		
	Total Flow (m³)	Avg. Flow (m³)	Max Day Flow (m³)	Min. Free Cl₂ Resid. (mg/L)	Max Free Cl₂ Resid. (mg/L)	Min Combined Cl2 Resid. (mg/L)	Max Combined Cl2 Resid. (mg/L)	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	Total Hardness (mg/L)	Average Manganese (mg/L)	Max Manganese (mg/L)	IH Avg. Turbidity (NTU)	IH Max. Turbidity (NTU)	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	Total Hardness (mg/L)	Average Manganese (mg/L)	Max Manganese (mg/L)	THM (µg/L) quaterly	HAA (µg/L) quaterly	NDMA (µg/L) quaterly	
JAN	35,809	1155	1555	1.05	2.60	1.21	1.97	6.20	6.60	323	0.07	0.11	0.31	0.50	3.00	3.50	322	0.05	0.08	42.00	27.10	0.0009	
FEB	31,867	1138	1311	1.39	2.32	1.55	2.17	3.90	3.60	430	0.10	0.11	0.51	0.60	2.50	1.80		0.07	0.09				
MAR	35,230	1136	1603	0.97	2.47	1.22	2.02	3.70	3.00	459	0.09	0.12	0.52	0.62	2.30	1.70		0.06	0.08				
APR				0.00	0.00	0.00	0.00																
MAY				0.00	0.00	0.00	0.00																
JUN				0.00	0.00	0.00	0.00																
JUL				0.00	0.00	0.00	0.00																
AUG				0.00	0.00	0.00	0.00																
SEP				0.00	0.00	0.00	0.00																
OCT				0.00	0.00	0.00	0.00																
NOV				0.00	0.00	0.00	0.00																
DEC				0.00	0.00	0.00	0.00																
TOTAL	102,906																						
AVG		1,143						4.60	4.40	404	0.09		0.45		2.60	2.33	322	0.06		42.00	27.10	0.0009	
MAX			1,603		2.60		2.17					0.12		0.62					0.09				
MIN				0.00		0.00																	
CRITERIA			3,182	CT		0.25	3.00													<100	<80	<0.009	

MONTH	SYSTEM FLOWS (RAW)				ACTIFLO FILTER #1		ACTIFLO FILTER #2		Efficiency		TANK		TREATED				E. coli / Total Coliform / HPC (Number of Samples Collected)				RAW WATER	
	Total Flow (m³)	Avg. Day Flow (m³)	Max. Flow (m³)	Max. Flow Rate (L/min)	Avg. Turbidity (NTU)	Max. Turbidity (NTU)	Avg. Turbidity (NTU)	Max. Turbidity (NTU)	Turbidity % < 0.3 NTU Filter #1	Turbidity % < 0.3 NTU Filter #2	Backwash TSS (mg/L)	Supernatant TSS (mg/L)	OL Avg. Turbidity (NTU)	OL Max. Turbidity (NTU)	Min UV Intensity (mJ/cm²)	Min UVT (%)	Safe		Adverse		Coliform Max. Count	E.coli Max. Count
																	Treated	Distribution	Treated	Distribution		
JAN	42,495	1371	1793	36.42	0.12	0.37	0.12	0.64	99.97	99.58	88	8	0.33	1.40	82	67	4	12	0	0	35,000	24
FEB	37,831	1351	1538	36.63	0.09	0.28	0.10	0.33	99.99	99.43	12	11	0.44	2.11	87	81	4	12	0	0	2,000	34
MAR	41,446	1337	1850	31.55	0.08	0.42	0.12	0.49	98.94	99.72	10	9	0.37	1.47	86	67	5	15	0	0	19,000	48
APR																						
MAY																						
JUN																						
JUL																						
AUG																						
SEP																						
OCT																						
NOV																						
DEC																						
TOTAL	121,772																13	39	0			
AVG		1,353			0.10		0.11		99.63	99.58	36.7	9.3	0.38									
MAX			1,850	37		0.42		0.64			88	11		2.11							35,000	48
MIN															82.00	67.00						
CRITERIA			3,182	2,205		<1		<1	>95%	>95%	<25	<25		<5	>40							

COMMENTS:



**ONTARIO CLEAN WATER AGENCY  
PERFORMANCE ASSESSMENT REPORT**

OWNER: MUNICIPALITY OF CASSELMAN  
 PROJECT: CASSELMAN WASTEWATER TREATMENT SYSTEM  
 ECA NUM.: 8160-BAHPRF  
 DESCRIPTION: MOVING BED BIOLOGICAL REACTOR (MBBR) TREATMENT LAGOON

YEAR: 2025  
 WATER COURSE: NATION RIVER  
 DESIGN CAPACITY: 2,110 m<sup>3</sup>/d  
 FACILITY WORKS#: 110002201

MONTH	RAW								EFFLUENT										
	Total Flow m <sup>3</sup>	Avg Day Flow m <sup>3</sup>	Max Day Flow m <sup>3</sup> /d	Avg Alum Dosage (mg/L)	Avg Raw BOD5 (mg/L)	Avg Raw TSS (mg/L)	Avg. Raw TKN (mg/L)	Avg Raw TP (mg/L)	Effluent Flow m <sup>3</sup>	Effluent Avg Flow m <sup>3</sup>	Effluent Max Flow m <sup>3</sup> /d	Avg CBOD5 (mg/L)	Avg TSS (mg/L)	Avg TAN (mg/L)	Avg TP (mg/L)	Avg TKN (mg/L)	Avg Nitrate (mg/L)	Avg Nitrite (mg/L)	E. coli (cfu/100 mL)
JAN	43,311	1,397	1,703	74.04	186	272	55.7	6.07	79,869	2,576	2,781	3.5	8.0	7.9	0.33	11.75	9.17	0.05	229
FEB	30,948	1,105	1,158	41.63	241	400	80.2	7.17	73,454	2,623	3,982	4.25	8.75	20.4	0.50	27.97	11.88	0.31	563
MAR	61,990	2,000	2,376	52.85	317	550	83.6	7.40	73,594	2,374	3,811	3.3	6.75	11.46	0.55	13.9	21.6	0.31	78
APR																			
MAY																			
JUN																			
JUL																			
AUG																			
SEPT																			
OCT																			
NOV																			
DEC																			
TOTAL	136,249								226,917										
AVG		1,501		56	248	407	73	6.88		2,525		3.7	7.8	13.3	0.46	17.9	14.2	0.22	216
MAX			2,376		317	550	84	7.40			3,982	4.3	8.8	20.4	0.55	28.0	21.6	0.31	563
CRITERIA						Fall Discharge			267,650	2,909									
						Winter/Spring Dircharge			502,500	3,722	5,000								

COMPLIANCE											YES								
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MONTH	UPSTREAM*				DOWNSTREAM**			
	Avg CBOD5 (mg/L)	Avg TSS (mg/L)	Avg TAN (mg/L)	Avg PHOS. (mg/L)	Avg CBOD5 (mg/L)	Avg TSS (mg/L)	Avg TAN (mg/L)	Avg PHOS. (mg/L)
JAN	3.0	6.0	0.12	0.04				
FEB	3.0	6.0	0.14	0.06				
MAR	3.0	32.3	0.14	0.12				
APR								
MAY								
JUN								
JUL								
AUG								
SEPT								
OCT								
NOV								
DEC								
TOTAL								
AVG	3.0	15	0.13	0.07	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
MAX	3	32.3	0.14	0.12	0.0	0	0.00	0.00
CRITERIA								

Comments:

## Appendix B

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### Work Order Summary Reports



## Monthly Work Order Summary – March 2025

### Casselman Drinking Water System

Description	Status	Work Type
Analyzer Total Chlorine Inspection/Service (1m) 5971	COMP	PM
Analyzer pH Inspection/Service (1m) 5971	COMP	PM
Analyzer Spectrophotometer Insp/Service (1m) - 5971	COMP	PM
Analyzer Turbidity Inspection/Service (1m) 5971	COMP	PM
Drive VFD Inspection (6m) 5971	COMP	PM
Blower Centrifugal Inspection/Service (1m) 5971	COMP	PM
Air Compressor Inspection/Service (1m) 5971	COMP	PM
Dryer Air Service (1m) - 5971	COMP	PM
Generator Inspection (1m) 5971	COMP	PM
Mixer Chemical Inspection (3m) 5971	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 5971	COMP	PM
Relief Valve UV Room Inspection (3m) 5971	COMP	OPER
Transformer Air Service (3y) - 5971	COMP	PM
UV Light Bank Insp/Service (1m) - 5971	COMP	PM
Workplace Inspection - DS Silica- 1m - 5971	COMP	OPER
Monthly H&S Equipment Check (1m) - 5971	COMP	PM
Client Reports (1m) - Casselman 5971	COMP	PM
UVT Sensor Checks/Calibration (1m) - 5971	COMP	PM
Pump Diaphragm Coagulant Route Inspection/Service (1m) 5971	COMP	PM
Pump Diaphragm Polymer Route Inspection/Service (1m) 5971	COMP	PM
Pump Diaphragm Sodium Hydroxide Route Inspection/Service (1m) 5971	COMP	PM
Pump Diaphragm Ammonium Sulphate Route Inspection/Service (1m) 5971	COMP	PM
Pump Diaphragm Potassium Permanganate Route Inspection/Service (1m) 5971	COMP	PM
WISKI Monthly Review(1m) 5971	COMP	PM
UV Sensor Reference Check/Calibration (1m) - 5971	COMP	PM
5971-02 Casselman Electrical/Instrumentation Upgrades-MM	COMP	CAP
5971-WTCA-P - Filter Faulted for High Differential	COMP	CALL
5971-WTCA-P - Filter Faulted Backwash required	COMP	CALL
5971-09 Casselman WTP Intake Cleaning	COMP	CAP

**Monthly Work Order Summary – March 2025**  
**Casselman Drinking Water System**

5971-03 Casselman Chemical Systems-MM Chlorine Annual Maintenance	COMP	CAP
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## Monthly Work Order Summary – March 2025

### Casselman Wastewater Treatment & Collection System

Description	Status	Work Type
Generator Inspection (1m) SPS #1 1501	COMP	PM
Generator Inspection (1m) SPS #2 1501	COMP	PM
Generator Inspection (1m) SPS #3 1501	COMP	PM
Generator Inspection (1m) SPS #5 1501	COMP	PM
Generator Inspection (1m) SPS #6 1501	COMP	PM
Generator Inspection (1m) 1501	COMP	PM
Analyzer Turbidity Inspection/Service (1m) 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#4 (1m) 1501	COMP	PM
Monthly H&S Equipment Check (1m) - 1501	COMP	PM
Blower Inspection/Service (1m/1y) 1501	COMP	PM
Blower Inspection/Service (1m/1y) 1501	COMP	PM
Blower Inspection/Service (1m/1y) 1501	COMP	PM
Blower Inspection/Service (1m/1y) 1501	COMP	PM
Blower Inspection/Service (1m/1y) 1501	COMP	PM
Bar Screen Inspection (1m) 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#6 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#3 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#2 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#5 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#1 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST LAGOON (1m) - 1501	COMP	PM
Workplace Inspection (1m) - 1501	COMP	OPER

WISKI Monthly Review(1m) 1501	COMP	PM
Call Back - Casselman MBBR - 1501 - Pump Low Flow	COMP	CALL
1501-WWCA - Casselman Sewage Excessive Rag Removal	APPR	CAP
1501-WWCA Blowers at lagoon service and repairs.	COMP	PM
High level alarm Casselman SPS1	COMP	CALL

# Appendix C

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## Locate Summary



## Casselman Monthly Locate Summary – March 2025

Description	Status	Work Type
Locate Casselman WDS 1553 - Shut Off +repairs - 778 Brebeuf	COMP	CAP
Locate Casselman WDS 1553 - 2025117846 -215 Laurier	COMP	OPER
Locate Casselman WDS 1553 - 2025125949- new development	COMP	OPER
Locate Casselman WDS 1553 - 2025127342- 192 argile	COMP	OPER
Locate Casselman WDS 1553 - Shut Off 744 Laval	COMP	CAP
Total Locates :5		