

Monthly Operations Report

for the Municipality of Casselman's Water and
Wastewater Systems

December 2025



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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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
Health & Safety			
Number of Incidents	0	●	
<i>Actual Result</i>		0	
Drinking Water			
Inspection Ratings (YTD)	100 %	●	
<i>Actual Result</i>		100 %	
AWQI's	0	●	
<i>Actual Result</i>		0	
Number of Non-Compliances	0	●	
<i>Actual Result</i>		0	
Number of Water Main Breaks	0	●	
<i>Actual Result</i>		0	
Number of Complaints	0	●	
<i>Actual Result</i>		0	
Water Main Flushing	0	●	
<i>Target Achieved</i>		Y	
Wastewater			
Number of Non-Compliances	0	●	
<i>Actual Result</i>		0	
Number of Bypasses	0	●	
<i>Actual Result</i>		0	
Number of Sanitary Sewer Back-ups	0	●	
<i>Actual Result</i>		0	
Sanitary Collection System Flushing	0	●	
<i>Target Achieved</i>		Y	
Preventive Maintenance			
Work Orders Completed	>95%	●	
<i>Target Achieved</i>		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	Rating not applicable	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)

A re-accreditation audit was conducted by SAI Global in November 2025. OCWA was recommended for re-accreditation following the audit.

SECTION 6 - MAINTENANCE / CAPITAL / ADDED VALUE

Water Treatment & Distribution

- Responded to four after-hours call-back alarms
- Isolated leak from watermain along the bridge and arranged for repair involving replacement of a portion of the insulated watermain
- Repaired main valve WNVB-0102 south of bridge
- Fernand Denis in to troubleshoot issue with heater in UV room

Wastewater Treatment & Collection

- Responded to one after-hours call-back alarm
- Lagoon discharge continued through December
- Pulled Pump #1 at SPS #5 to remove blockage; installed new handle on pump
- Installed space heaters at SPS #1 as heating system is not working properly
- Cleaned rags from compactor at SPS #1
- Grease build up caused issues at SPS #6; called Hydrocam in to clean wet well

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

- 9 locates were completed in December

Appendix A

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 (m ³)	Avg. Flow (m ³)	Max Day Flow (m ³)	Min. Free Cl ₂ Resid. (mg/L)	Max Free Cl ₂ Resid. (mg/L)	Min Combined Cl ₂ Resid. (mg/L)	Max Combined Cl ₂ 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) quarterly	HAA (µg/L) quarterly	NDMA (µg/L) quarterly
JAN	35,809	1,155	1,555	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	42.0	27.1	0.0009
FEB	31,867	1,138	1,311	1.39	2.32	1.32	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	1,136	1,603	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	33,940	1,131	1,378	1.09	2.23	1.15	1.71	7.80	7.20	214	0.13	0.22	0.38	0.57	3.00	2.50		0.03	0.04	40.0	27.7	0.0026
MAY	37,094	1,197	1,700	1.06	2.30	1.24	1.98	7.60	7.60	309	0.09	0.12	0.27	0.35	3.50	3.30		0.02	0.03			
JUN	39,041	1,301	1,610	0.91	2.45	1.21	1.86	6.40	6.40	340	0.08	0.12	0.30	0.45	3.10	2.70		0.02	0.04			
JUL	38,503	1,242	1,878	0.92	2.63	1.00	2.06	8.50	10.70	282	0.16	0.32	0.35	0.48	4.70	4.80		0.03	0.06	98.00	49.90	0.0029
AUG	38,610	1,245	1,673	1.07	2.80	0.83	2.09	9.60	9.30	308	0.16	0.40	0.45	1.29	4.50	4.30		0.03	0.16			
SEP	31,764	1,059	1,420	1.47	2.30	0.92	1.87	10.20	9.10	254	0.11	0.19	0.24	0.31	4.90	4.50		0.01	0.02			
OCT	31,798	1,026	1,198	1.21	2.59	1.05	1.80	9.20	8.70	282	0.14	0.20	0.32	0.44	4.30	4.10		0.02	0.10	86.00	42.90	0.0012
NOV	30,460	1,015	1,145	1.50	2.27	1.28	1.87	7.80	7.70	303	0.09	0.14	0.33	0.40	4.60	3.90		0.02	0.03			
DEC	31,350	1,011	1,634	1.59	2.52	1.03	1.81	7.00	6.80	387	0.12	0.17	0.30	0.39	4.50	3.50		0.02	0.04			
TOTAL	415,466																					
AVG		1,138						7.33	7.23	324	0.11		0.36		3.74	3.38	322	0.03		66.5	36.9	0.002
MAX			1,878		2.80		2.17							1.29					0.16			
MIN				0.91		0.83																
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 (m ³)	Avg. Day Flow (m ³)	Max. Flow (m ³)	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/cm ²)	Min UVT (%)	Safe		Adverse		Max. Coliform Count	Max. E. coli Count	
																	Treated	Distribution	Treated	Distribution			
JAN	42,495	1,371	1,793	2185	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	1,351	1,538	2198	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	1,337	1,850	1893	0.11	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	38,744	1,291	1,720	1756	0.09	0.55	0.11	0.48	99.88	96.20	8	9	0.22	0.66	102	76	4	12	0	0	1,300	78	
MAY	41,607	1,342	1,875	1739	0.11	0.56	0.12	0.29	99.81	100.00	41	13	0.18	0.52	95	80	4	12	0	0	300	39	
JUN	43,552	1,452	1,917	1701	0.12	0.45	0.12	0.34	99.96	99.95	3	4	0.18	0.40	110	81	5	15	0	0	50	12	
JUL	43,464	1,402	2,120	1727	0.13	0.61	0.14	0.54	99.71	99.74	17	17	0.27	0.81	127	83	4	12	0	0	160	18	
AUG	44,651	1,440	1,919	2405	0.16	0.60	0.14	0.64	99.88	99.82	12	6	0.24	1.14	140	74	4	12	0	0	300	4	
SEP	36,480	1,216	1,699	1532	0.11	0.67	0.12	0.39	99.92	99.85	4	3	0.10	0.40	126	88	5	15	0	0	150	76	
OCT	35,760	1,154	1,334	1525	0.12	0.53	0.14	0.48	99.72	99.74	6	3	0.12	0.29	139	91	4	12	0	0	490	21	
NOV	35,167	1,172	1,333	1525	0.13	0.53	0.15	0.53	99.73	99.29	5	7	0.17	0.39	115	91	4	12	0	0	2,400	110	
DEC	36,594	1,180	1,414	1525	0.12	0.59	0.13	0.64	99.87	99.88	83	6	0.14	0.37	111	90	5	15	0	0	5,200	94	
TOTAL	477,791																52	156	0	0			
AVG		1,309			0.12		0.13		99.78	99.43	24	8	0.23										
MAX			2,120	2,405		0.67		0.64			88	17		2.11								35,000	110
MIN															82	67							
CRITERIA			3,182	2,205		<1		<1	>95%	>95%	<25	<25		<5	>40								

COMMENTS:

*PTTW maximum allowable flow rate was exceeded for two short periods on August 19, 2025 during Chlorine Dioxide Pilot Testing.

**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 m³/d
FACILITY WORKS#: 110002201

MONTH	RAW								EFFLUENT										
	Total Flow m ³	Avg Day Flow m ³	Max Day Flow m ³ /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 ³	Effluent Avg Flow m ³	Effluent Max Flow m ³ /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	74.0	186	272	55.7	6.07	80,565	2,599	2,781	3.5	8.0	7.89	0.33	11.8	9.2	0.05	193
FEB	30,948	1,105	1,158	41.9	241	400	80.2	7.17	64,941	2,824	3,982	4.3	8.8	20.42	0.50	28.0	11.9	0.31	563
MAR	61,990	2,000	2,376	52.9	317	550	83.6	7.40	74,222	2,394	3,811	3.3	6.8	11.46	0.55	13.9	21.6	0.31	78
APR	62,792	2,093	2,920	60.3	157	444	27.7	3.27	175,858	5,862	6,938	3.0	11.0	2.55	0.36	4.4	17.7	0.08	22
MAY	45,289	1,461	1,728	39.3	194	266	41.6	4.49	83,591	5,573	6,763	4.0	8.5	0.28	0.30	2.0	16.2	0.05	38
JUN	38,706	1,290	1,328	53.3	64	190	49.0	1.98											
JUL	45,411	1,465	1,978	54.7	161	510	106.0	5.09											
AUG	35,686	1,151	1,236	52.8	153	395	59.8	6.49											
SEPT	32,269	1,076	1,121	54.2	194	480	58.3	6.44											
OCT	33,705	1,087	1,406	52.4	248	480	48.3	5.80	83,085	2,680	3,133	3.6	5.8	1.17	0.42	4.1	9.5	0.90	12
NOV	41,643	1,388	1,536	44.7	153	275	37.2	3.75	73,284	2,443	3,098	3.0	3.5	4.41	0.48	7.4	15.2	0.07	3
DEC	38,664	1,247	1,372	48.0	307	450	56.0	5.71	59,709	1,926	1,980	3.0	5.2	2.71	0.37	5.2	18.8	0.44	13
TOTAL	510,414								695,255										
AVG		1,397		52.4	198	393	58.6	5.31		3,288		3.5	7.2	6.4	0.41	9.6	15.0	0.28	37
MAX			2,920		317	550	106	7.40			6,938	4.3	11.0	20.4	0.55	28.0	21.6	0.90	563
CRITERIA									Fall Discharge	267,650	2,909								
									Winter/Spring Dircharge	502,500	3,722								

COMPLIANCE																				
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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	3.0	34.8	0.13	0.12	3.0	154	0.31	0.16
MAY	3.0	5.0	0.06	0.05	3.0	10.5	0.26	0.06
JUN								
JUL								
AUG								
SEPT								
OCT	3.0	10.0	0.09	0.12	3.2	15.6	0.14	0.10
NOV	3.0	7.0	0.36	0.10	3.0	5.0	0.19	0.08
DEC	-	-	-	-	-	-	-	-
TOTAL								
AVG	3.0	14	0.15	0.09	3.1	46.3	0.23	0.10
MAX	3	34.8	0.36	0.12	3.2	154	0.31	0.16
CRITERIA								

Comments:

*No Upstream/Downstream Samples required to be collected when downstream sampling is not feasible due to ice cover on the Nation River.

**No Downstream sample collected in January, February, March and part of April.

**No Upstream/Downstream samples collected November 12th and 19th, and all of December.

Appendix B

Work Order Summary Reports



Monthly Work Order Summary – December 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
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
UV Light Bank Insp/Service (1m) - 5971	COMP	PM
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
PDM (WISKI) Data Entry and Review-Ops (1m) 5971	COMP	PM
Sampling and Testing (1m) 5971	COMP	PM
UV Sensor Reference Check/Calibration (1m) - 5971	COMP	PM
Relief Valve UV Room Inspection (3m) 5971	COMP	OPER
Workplace Inspection - DS Silica- 1m - 5971	COMP	OPER
1553-WDCA - Case# 620223 - Water Turn Off Request at 1 Industrial Dr.	COMP	CAP
1553-WDCA - Water Main Break at Bridge Crossing	APPR	CAP
1553-WDCA - Water Main Valve Isolation At Bridge	COMP	CAP
High Filtered turbidity alarm Actiflo 1	COMP	CALL
5971-CALL BACK - High Settled and Effluent Turbidity Actiflo 1	COMP	CALL
5971-CALL BACK - high effluent turbidity Actiflo 2	COMP	CALL
WTP High turbidity Alarm	COMP	CALL

Monthly Work Order Summary – December 2025
Casselman Wastewater Treatment & Collection System

Description	Status	Work Type
Analyzer Turbidity Inspection/Service (1m) 1501	COMP	PM
Bar Screen Inspection (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
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 Lagoon (1m) 1501	COMP	PM
Monthly H&S Equipment Check (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST LAGOON (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#1 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#2 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#3 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#4 (1m) 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#5 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST SPS#6 (1m) - 1501	COMP	PM
PDM (WISKI) Data Entry and Review-Ops (1m) 1501	COMP	PM
Sampling and Testing (1m) 1501	COMP	PM
Workplace Inspection (1m) - 1501	COMP	OPER
1501-06 Building and Grounds- MM - Plumbing Leaks SPS1	COMP	CAP
1501-WWCA - SPS1 - Issues with Heating System	APPR	CAP
1501-WWCA - SPS-5 - Pump 1 Fault	APPR	CAP
SPS #6 Wet Well Cleaning - Casselman - 1501	COMP	CAP
SPS #6 pump low flow	COMP	CALL

Appendix C

Locate Summary



Casselman Monthly Locate Summary – December 2025

Description	Status	Work Type
Locate request "2025499008" PRINCIPALE	COMP	OPER
Locate request "2025497564" Argile 218-204	COMP	OPER
Locate request "2025491633" Emergency Bridge	COMP	OPER
Locate request "2025501889" 37 Richer	COMP	OPER
Locate request "2025504900" La fontaine	COMP	OPER
Locate request "2025507252" Phase 2B	COMP	OPER
Locate request "2025507252" duboise/ Principale	COMP	OPER
Locate request "2025507301" duboise/ Broadband	COMP	OPER
Locate request "2025507329" duboise/ Broadband #2	COMP	OPER
Total		9