

# Monthly Operations Report

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for the Municipality of Casselman's Water and  
Wastewater Systems

August 2024



**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
<b>Health &amp; Safety</b>			
Number of Incidents	0	●	
<i>Actual Result</i>		0	
<b>Drinking Water</b>			
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	
<b>Wastewater</b>			
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	
<b>Preventive Maintenance</b>			
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 1 MBBR (Moving Bed Biofilm Reactor)
5976 - 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 2, 2024
Casselman Sewage	<i>*OCWA has no recent sewage system inspections on file.</i>		

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 6 after-hours call-in alarms
- Flushed dead ends throughout distribution system
- Installed water traps on air lines of Actiflo 2 filter to waste & filter actuator valves
- Installed dedicated electrical outlets for WTP compliance and primary plant control Cl2 analyzers
- Replaced filter effluent valve FV-2207 on Actiflo 2
- Replaced belts on Actiflo 2 recirculation pump
- Collaborated with L.W. Bray on the St. Isidore Water/Sewer Main replacement project

### Wastewater Treatment & Collection

- Responded to 2 after-hours call-in alarms
- Cleaned wet wells at SPS #1, 5, & 6

### 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**

<b>Facility</b>	<b>Date</b>	<b>Description</b>
		None to report

## **SECTION 8 – RECOMMENDATIONS / GENERAL COMMENTS**

### General

- 25 locates were completed in August.

### Water Treatment & Distribution

- Capital/Major Maintenance projects approved for 2024 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 2024 are underway.

# 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:** 2024  
**WATER SOURCE:** NATION RIVER  
**DESIGN CAPACITY:** 3182 m3/d  
**WORKS NUM.:** 210001219

MONTH	SYSTEM FLOWS (TREATED)			TREATED		DISTRIBUTION		RAW					TREATED					DISTRIBUTION				
	Total Flow (m <sup>3</sup> )	Avg. Flow (m <sup>3</sup> )	Max Day Flow (m <sup>3</sup> )	Min. Free Cl <sub>2</sub> Resid. (mg/L)	Max Free Cl <sub>2</sub> Resid. (mg/L)	Min Combined Cl <sub>2</sub> Resid. (mg/L)	Max Combined Cl <sub>2</sub> 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	33,460	1079	1400	1.26	2.35	0.36	2.41	8.30	8.30	279	0.07	0.10	0.25	0.36	3.80	3.80	277	0.05	0.07	41.0	25.7	< 0.0009
FEB	31,549	1088	1356	1.25	2.00	1.11	2.28	6.30	6.30	339	0.09	0.12	0.26	0.36	3.30	3.30	327	0.05	0.07	-	-	-
MAR	33,671	1086	1269	1.20	1.93	1.15	2.26	7.10	8.10	243	0.11	0.21	0.33	0.97	4.00	4.10	226	0.05	0.09	-	-	-
APR	33,539	1118	1458	1.25	2.10	1.27	2.39	6.50	6.50	304	0.15	0.27	0.40	0.65	4.60	4.60	294	0.06	0.08	74.0	40.0	0.001
MAY	37887	1222	1679	0.65	2.30	0.63	2.48	8.20	9.80	266	0.09	0.13	0.48	0.65	1.60	3.30	268	0.04	0.07	-	-	-
JUN	39161	1305	1607	0.76	2.18	0.93	2.20	7.70	7.80	296	0.08	0.16	0.46	0.62	3.60	3.60	292	0.03	0.04	-	-	-
JUL	41919	1352	1708	0.67	2.50	0.60	2.32	8.70	8.80	283	0.08	0.11	0.35	0.48	3.80	3.80	256	0.04	0.06	120.00	75.30	2.000
AUG	43772	1412	2046	0.60	2.65	0.58	2.11	8.60	8.60	319	0.17	0.40	0.38	0.51	4.00	4.10	315	0.04	0.05	-	80.70	-
SEP																						
OCT																						
NOV																						
DEC																						
TOTAL	294,958																					
AVG		1,208						7.68	8.03	291	0.11		0.36		3.59	3.83	282	0.04		78.3	55.4	0.0010
MAX			2,046		2.65		2.48					0.40		0.97				0.09				
MIN				0.60		0.36																
CRITERIA			<b>3,182</b>	<b>CT</b>		<b>0.25</b>	<b>3.00</b>													<b>&lt;100</b>	<b>&lt;80</b>	<b>&lt;0.009</b>

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 <sup>3</sup> )	Avg. Day Flow (m <sup>3</sup> )	Max. Flow (m <sup>3</sup> )	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 <sup>2</sup> )	Min UVT* (%)	Safe		Adverse		Max. Coliform Count	Max. E. coli Count
																	Treated	Distribution	Treated	Distribution		
JAN	41,605	1342	1659	1950.0	0.12	0.70	0.12	0.31	99.88	99.99	7	3	0.36	1.45	63	79	5	15	0	0	16,000	32
FEB	40,331	1391	1725	2204.6	0.18	0.65	0.11	0.26	99.63	100.00	33	6	0.47	2.00	53	80	4	12	0	0	19,800	88
MAR	40,408	1303	1910	2102.0	0.24	0.51	0.12	0.39	98.26	99.54	3	6	0.18	1.55	63	80	4	12	0	0	39,000	67
APR	40,854	1362	2006	2260.0	0.16	0.62	0.15	0.39	98.79	99.46	8	7	0.18	0.32	72	74	5	15	0	0	31,000	57
MAY	44,572	1438	1889	2144	0.17	0.74	0.17	0.68	97.42	98.77	50	7	0.22	0.60	72	70	4	12	0	0	2,800	140
JUN	44,971	1499	1939	2134	0.16	0.59	0.16	0.68	98.52	98.52	8	3	0.28	2.28	78	70	4	12	0	0	8,000	290
JUL	47,034	1517	1809	1910	0.15	0.42	0.15	0.36	99.96	99.73	3	4	0.26	1.50	65	66	5	15	0	0	8,000	56
AUG	50,633	1633	2443	1911	0.16	0.77	0.15	0.59	99.44	99.45	4	4	0.30	1.48	65	66	5	15	0	0	9,000	86
SEP																						
OCT																						
NOV																						
DEC																						
TOTAL	350,408																36	108	0	0		
AVG		1,436			0.17		0.14		98.99	99.43	15	5	0.28									
MAX			2,443	2,260		0.77		0.68			50	7		2.28							39,000	290
MIN															53	66						
CRITERIA			<b>3,182</b>	<b>2,205</b>		<b>&lt;1</b>		<b>&lt;1</b>	<b>&gt;95%</b>	<b>&gt;95%</b>	<b>&lt;25</b>	<b>&lt;25</b>		<b>&lt;5</b>	<b>&gt;40</b>							

**COMMENTS:**  
 \*UVT - No Flow to UVT analyzer from 11:35 pm on February 10th to 10:55 am on February 12th.



**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:** 2024  
**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	45,794	1,477	1,923	128.14	347	360	55.4	6.21	59,408	1,916	1,966	3.4	7.0	1.85	0.10	3.5	5.5	0.12	6
FEB	45,995	1,586	1,805	112.90	219	366	38.0	4.71	64,482	2,224	2,926	3.8	7.0	7.71	0.20	10.8	6.7	0.05	4
MAR	60,051	1,937	2,293	86.81	361	650	43.8	5.45	110,786	3,574	3,904	3.8	9.0	4.78	0.21	7.5	13.1	0.30	6
APR	58,249	1,942	2,235	70.3	292	516	49.0	6.52	132,579	4,419	4,752	4.2	11.4	0.14	0.18	2.1	13.8	0.06	6
MAY	51,003	1,645	1,860	57.16	180	420	58.7	7.40	59,851	4,604	4,752	3.0	3.5	0.10	0.40	1.6	9.8	0.05	4
JUN	47,282	1,576	1,805	53.23	213	225	57.1	5.86											
JUL	57,725	1,862	2,198	58.61	215	260	51.7	5.74											
AUG	55,615	1,794	2,085	65	187	355	48.2	5.65											
SEPT																			
OCT																			
NOV																			
DEC																			
TOTAL	421,714								427,106										
AVG		1,727		79	252	394	50.2	5.94		3,347		3.6	7.6	2.9	0.22	5.1	9.8	0.12	5
MAX			2,293		361	650	58.7	7.40			4,752	4.2	11.4	7.7	0.40	10.8	13.8	0.30	6
CRITERIA							Fall Discharge			267,650	2,909								
A							Winter/Spring Dircharge			502,500	3,722	5,000							

<b>COMPLIANCE</b>											<b>YES</b>								
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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	8.0	0.05	0.07	3.0	5.0	0.05	0.05
FEB	-	-	-	-	-	-	-	-
MAR	3.0	15.5	0.08	0.08	3.0	18.0	0.07	0.09
APR	3.0	17.3	0.10	0.07	3.00	20.3	0.08	0.07
MAY	3.0	6.0	0.05	0.06	3.0	49.5	0.12	0.14
JUN								
JUL								
AUG								
SEPT								
OCT								
NOV								
DEC								
TOTAL								
AVG	3.0	11.7	0.07	0.07	3.0	23.2	0.08	0.09
MAX	3.0	17.3	0.10	0.08	3.0	49.5	0.12	0.14
CRITERIA								

**Comments:**

\*No Upstream/Downstream Samples required to be collected when downstream sampling is not feasible due to ice cover on the Nation River. (January 9, 16, 23, 30 & February 2024)

# Appendix B

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## Work Order Summary Reports



## Monthly Work Order Summary – August 2024

### Casselman Drinking Water System

Description	Status	Work Type
5971-WTCA-P - Low chlorine distribution analyzer SPS-1	COMP	CALL
5971-WTCA-P - UV system not working	COMP	CALL
5971-WTCA-P - Chlorine tanks empty	COMP	CALL
Call Back - Casselman WTP - 5971 - Transfer Tank Pump Fault	COMP	CALL
5971 Casselman WTP - Multiple Alarms	COMP	CALL
Call Back - Casselman WTP - 5971 - UV Alarm	COMP	CALL
5971-02 Casselman Electrical/Instrumentation Upgrades-MM - Pump Plugs	APPR	CAP
5971 Casselman WTP Actiflo 2 Actuating Valve Failed	COMP	CAP
5971-01 Casselman Emergency Repairs-MM- Garage door repair	COMP	CAP
5971 Casselman WTP - High Chlorine Primary	COMP	CAP
Workplace Inspection - DS Silica- 1m - 5971	COMP	OPER
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
PANEL ALARM/DIALER TEST (1m) - 5971	COMP	PM
Transmitter Flow (1y) Service 5971	APPR	PM
UV Light Bank Insp/Service (1m) - 5971	COMP	PM
Monthly H&S Equipment Check (1m) - 5971	COMP	PM
Client Reports (1m) - Casselman 5971	APPR	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

**Monthly Work Order Summary – August 2024**  
**Casselman Drinking Water System**

WISKI Monthly Review(1m) 5971	COMP	PM
UV Sensor Reference Check/Calibration (1m) - 5971	COMP	PM

**Monthly Work Order Summary – August 2024**  
**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	APPR	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
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
SPS1 call in	COMP	CALL
O&M - Casselman - 1501 - Sewage - Sps 1/5/6 Cleaning	COMP	PM

# Appendix C

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## Locate Summary



## Casselman Monthly Locate Summary – August 2024

Description	Status	Work Type
Locate Casselman WDS 1553 - 2024326874 - 117 Argile St	COMP	OPER
Locate Casselman WDS 1553 - 20243120488 - 7 Martin St	COMP	OPER
Locate Casselman WDS 1553 - 20243114563 - 728 St. Isidore St	COMP	OPER
Locate Casselman WDS 1553 - 20243120465 - 728 St. Isidore St	COMP	OPER
Locate Casselman WDS 1553 - 2024322203 - 707 St. Isidore St	COMP	OPER
Locate Casselman WDS 1553 - 20243114589 - 13-17 Sarah St	COMP	OPER
Locate Casselman WDS 1553 - 20243114940 - La Fontaine Sideroad	COMP	OPER
Locate Casselman WDS 1553 - 20243122945 - 317 Zakari	COMP	OPER
Locate Casselman WDS 1553 - 2024321948 - 210 Zakari St	COMP	OPER
Locate Casselman WDS 1553 - 2024321806 - Brebeuf St Isidore	COMP	OPER
Locate Casselman WDS 1553 - 20243215391 538 St .Isidore	COMP	OPER
Locate Casselman WDS 1553 - 2024333135 568-564 St. Isidore	COMP	OPER
Locate Casselman WDS 1553 - 2024335223 795-792 St Teresse	COMP	OPER
Locate Casselman WDS 1553 - 2024339897 HWY 417	COMP	OPER
Locate Casselman WDS 1553 - 20243321294 37 Isabelle	COMP	OPER
Locate Casselman WDS 1553 - 2024340221 349 Dore	COMP	OPER
Locate Casselman WDS 1553 - 2024344624 685 Ste Anne	COMP	OPER
Locate Casselman WDS 1553 - 2024344602 15-25 Sarah	COMP	OPER
Locate Casselman WDS 1553 - 20243417646 141 Argile	COMP	OPER
Locate Casselman WDS 1553 696 Dollard - 2024355976	COMP	OPER
Locate Casselman WDS 1553 -2024355812 Fire Hall	COMP	CAP
Locate Casselman WDS 1553 -2024355791 7 Vanessa Cres	COMP	CAP
Locate Casselman WDS 1553 -20243511701 10 Roger Cres	COMP	CAP
Locate Casselman WDS 1553 - 2024321948 - La Fontaine	COMP	CAP
Locate Casselman WDS 1553 -20243413496 37 Isabelle	COMP	CAP
<b>Total</b>		25