

Monthly Operations Report

for the Municipality of Casselman's Water and
Wastewater Systems

August 2023



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>		100 %	
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 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 or wastewater systems.

The most recent MECP inspections are listed below:

Location	Inspector	Inspection Rating (%)	Date
Casselman Water	Jean-Francois Durocher	100	February 9, 2023
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 13 after-hours call-in alarms
- Stand post repaired at 54 Laurier Street
- Repaired hydrant on the corner of Montcalm & Brebeuf
- Replaced raw water valve in the WTP
- OCS in to perform maintenance on compressor and blower (follow up visit required)
- DM Valve in to repair valve and replace actuator on Filter #1
- Completed dead end flushing in distribution system
- Observed water main connection at High Falls on Nation River Rd. for the washroom building

Wastewater Treatment & Collection

- No after hours call in alarms received
- Cleaned compactor at SPS #1
- Observed sewer main connection at High Falls on Nation River Rd for the washroom building

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

- 30 locates were completed in August.

Water Treatment & Distribution

- Capital/Major Maintenance projects approved for 2023 are underway.
- OCWA staff worked with Carleton University performing jar testing at the WTP.
- OCWA staff continued working with chemist Dr. Dallala on behalf of the Municipality.

Wastewater Treatment & Collection

- Capital/Major Maintenance projects approved for 2023 are underway.

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: 2023
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) quaterly	HAA (µg/L) quaterly	NDMA (µg/L) quaterly
JAN	30,573	986	1259	1.10	2.49	1.00	2.26	8.30	8.40	242	0.12	0.20	0.22	0.33	3.00	3.20	224	0.07	0.18	53.75	32.13	< 0.0009
FEB	28,511	1018	1342	1.33	2.55	0.70	2.02	4.00	4.00	372	0.12	0.18	0.27	0.42	1.40	1.70	361	0.12	0.34	-	-	-
MAR	29,920	965	1223	1.38	2.37	1.01	2.00	4.60	4.60	330	0.16	0.19	0.26	0.35	2.00	2.00	329	0.06	0.09	-	-	-
APR	31,287	1043	1266	0.83	3.60	0.79	1.79	3.30	5.60	169	0.11	0.13	0.34	0.53	1.60	1.70	161	0.03	0.04	27.00	26.80	< 0.0009
MAY	38373	1238	1571	0.85	2.87	0.30	2.63	6.90	6.90	222	0.13	0.19	0.48	0.77	2.00	2.00	218	0.03	0.05	-	-	-
JUN	39275	1309	1879	1.50	2.37	0.66	2.33	3.30	3.30	275	0.31	0.88	1.04	4.43	1.60	1.60	281	0.11	0.55	-	-	-
JUL	39232	1266	1988	0.73	3.10	0.58	2.40	5.20	5.20	274	0.62	1.22	4.06	13.20	1.00	1.00	271	0.39	1.00	147.00	119.00	0.0024
AUG	36194	1168	1449	1.00	2.96	0.30	2.45	5.90	5.90	245	0.11	0.17	0.41	0.50	3.10	3.10	248	0.03	0.07	-	-	-
SEP																						
OCT																						
NOV																						
DEC																						
TOTAL	273,366																					
AVG		1,124						5.19	5.49	266.13	0.21		0.89		1.96	2.04	261.63	0.11		75.92	59.31	0.0009
MAX			1,988		3.60		2.63							13.20					1.00			
MIN				0.73		0.30																
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. Count	Max. E.coli Count	
																		Treated	Distribution	Treated	Distribution		
JAN	38,963	1257	1790	2195	0.14	0.56	0.08	0.84	99.71	99.71	11	3	0.44	0.90	70	81	5	15	0	0	16,200	66	
FEB	38,499	1375	1666	2149	0.15	0.34	0.10	0.29	99.97	99.97	3	6	-	-	65	87	4	12	0	0	1,860	85	
MAR	38,816	1252	1606	2016	0.16	0.72	0.11	0.38	98.93	98.93	3	5	-	-	82	86	4	12	0	0	780	76	
APR	39,411	1314	1963	2086	0.18	0.81	0.14	0.71	97.00	98.39	3	11	-	-	96	86	4	12	0	0	19,600	45	
MAY	45,286	1461	1750	2021	0.21	0.83	0.15	0.71	92.56	97.25	14	9	-	-	63	85	5	15	0	0	2,400	152	
JUN	44,165	1472	2317	2168	0.28	0.93	0.20	0.86	71.41	90.61	12	9	0.90	3.70	81	86	4	12	0	0	50	14	
JUL	47,573	1535	2070	2215	0.35	0.86	0.38	0.98	50.56	63.44	15	7	2.83	5.00	73	87	5	16	0	0	20,000	290	
AUG	41,731	1346	1844	1993	0.15	0.80	0.19	0.68	98.96	96.84	10	4	0.29	1.55	75	72	4	12	0	0	110	26	
SEP																							
OCT																							
NOV																							
DEC																							
TOTAL	334,443																35	106	0	0			
AVG		1,376			0.20		0.17		88.64	93.14	8.9	6.8	1.12										
MAX			2,317	2,215		0.93		0.98			15	11		5.00							20,000	290	
MIN															63.00	71.99							
CRITERIA			3,182	2,205		<1		<1	>95%	>95%				<5	>40								

COMMENTS: * Treated Water OL Turbidity - No reliable readings trended on SCADA from January 20th - 31th, February, March, April, May, June 1 to June 14th 2023
 ** Added Individual Filtter Efficiency Tracking in April 2023
 *** Raw Water Flow Rate Spike above 2205 L/min on July 17, 2023 for less then 1 minute.

Appendix B

Work Order Summary Reports



Monthly Work Order Summary – August 2023

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
PANEL ALARM/DIALER TEST (1m) - 5971	COMP	PM
UV Light Bank Insp/Service (1m) - 5971	COMP	PM
Annual Facility Description Review (1y) - 5971	APPR	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
Analyzer Turbidity Inspection/Service (1m) 1501	COMP	PM
WISKI Monthly Review(1m) 5971	COMP	PM
UV Sensor Reference Check/Calibration (1m) - 5971	COMP	PM
Workplace Inspection (1m) - 5971	COMP	OPER
Property Maintenance - Casselman WTP 5971	APPR	CAP
Capital Emergency Sodium hydroxide injector blocked Casselman WTP 5971	COMP	CAP
Capital - Maganese Testing - Casselman WTP - 5971	APPR	CAP
MM - Casselman - 5971 - WTP - Valve replacement on filter #2	COMP	CAP
Capital Magnesium removal in Actiflo Casselman 5971	COMP	CAP
Capital - Casselman - WTP - 5971 - Compressor and dryer work	COMP	CAP
MM - Casselman - 5971 - WTP - Failed valve on filter 1	APPR	CAP
MM - Casselman - 1553 - WDS - Repair of standpost at 54 Laurier St	COMP	CAP
CB-Casselman 5971 Thunderstorm power outages	COMP	CALL
CB-Casselman 5971 Intrusion alarm	COMP	CALL
CallBack - High turbidity - Casselman WTP - 5971	COMP	CALL
Call Back - Casselman - 5971 - WTP - High pressure differential shutdown for filter 2	COMP	CALL
Call Back - Casselman - 5971 - WTP - Raw valve failure filter 2	COMP	CALL
Casselman 5971 WTP - High filtered water turbidity acitflo #1	COMP	CALL
Call Back - Casselman - 5971 - WTP - Air valve failure filter 2and SCADA issues	COMP	CALL
Call Back - Casselman - 5971 - WTP - High - high filtered water turbidity and filter 1 shut down	COMP	CALL
Call Back - Casselman - 5971 - WTP - Raw valve failure and backwash issues for filter 2	COMP	CALL

Monthly Work Order Summary – August 2023
Casselman Drinking Water System

Call Back - Casselman - 5971 - WTP - High Chlorine Clear Well	COMP	CALL
Call Back - Casselman - 5971 - WTP - High Differential Actiflo 2	COMP	CALL
Call Back - Casselman - 5971 - WTP - Actiflo 1 High LVL	COMP	CALL
Call Back - Casselman - 1553- Distribution - High Chlorine SPS 1	COMP	CALL
AWQI - Filter 1 & 2 below 95 % Filter Performance in July - 5971	COMP	ADMIN

Monthly Work Order Summary – August 2023
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 (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 (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
PANEL ALARM/DIALER TEST (1m) - 1501	COMP	PM
WISKI Monthly Review(1m) 1501	COMP	PM
Workplace Inspection (1m) - 1501	COMP	OPER

Appendix C

Locate Summary



Casselman Monthly Locate Summary – August 2023

Description	Status	Work Type
Locate Casselman WDS 1553 - 20233023803 - 31 Faucher	COMP	OPER
Locate Casselman WDS 1553 - 20232911876 - 285 Nature St	COMP	OPER
Locate Casselman WDS 1553 - 2023313418 - 754 Levesque	COMP	OPER
Locate Casselman WDS 1553 - 2023311830 - 13 Maria St	COMP	OPER
Locate Casselman WDS 1553 - 2023320714 - 632-640 Conservation	COMP	OPER
Locate Casselman WDS 1553 - 2023322657 - 849-863 St Isadore	COMP	OPER
Locate Casselman WDS 1553 - 20233212416 - 54 Laurier	COMP	OPER
Locate Casselman WDS 1553 - 20233217378 - 786 Levesque	COMP	OPER
Locate Casselman WDS 1553 - 2023332520 - 656 Dollard St	COMP	OPER
Locate Casselman WDS 1553 - 2023333780 - 632 Principale St	COMP	OPER
Locate Casselman WDS 1553 - 2023336543 - 730 St Isidore	COMP	OPER
Locate Casselman WDS 1553 - 2023338832 - 149 Laurier St	COMP	OPER
Locate Casselman WDS 1553 - 20233216614 - HWY 417	COMP	OPER
Locate Casselman WDS 1553 - 20233312758 - 712 Des Cedres	COMP	OPER
Locate Casselman WDS 1553 - 20233313828 - 762 Brebeuf St	COMP	OPER
Locate Casselman WDS 1553 - 20233313812 - 730 St Isidore	COMP	OPER
Locate Casselman WDS 1553 - 20233320877 - Maria St	COMP	OPER
Locate Casselman WDS 1553 - 20233320893 - Principale and HWY 417	COMP	OPER
Locate Casselman WDS 1553 - 20233321135 - Principale and HWY 417	COMP	OPER
Locate Casselman WDS 1553 - 20233321284 - 124 Argile St	COMP	OPER
Locate Casselman WDS 1553 - 20233323312 - 276 + 280 Nature St	COMP	CAP
Locate Casselman WDS 1553 - 2023340228 - Zakari St	COMP	CAP
Locate Casselman WDS 1553 - 20233316962 - HWY 417	COMP	CAP
Locate Casselman WDS 1553 - 2023340225 - 876 ST Isidore	COMP	CAP
Locate Casselman WDS 1553 - 2023290261 - 616 Conservation St	COMP	CAP
Locate Casselman WDS 1553 - 2023348219 - 225 - 233 Zakari St	COMP	CAP
Locate Casselman WDS 1553 - 20233412227 - Principale St	COMP	CAP
Locate Casselman WDS 1553 - 20233414358 - 141 Argile St	COMP	CAP
Locate Casselman WDS 1553 - 20233425626 - 700 St Isidore	COMP	CAP
Locate Casselman WDS 1553 - 2023350884 - 654 Des Epinettes	COMP	CAP
Total		30