

Monthly Operations Report

for the Municipality of Casselman's Water and
Wastewater Systems

July 2022



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 sun with a thick, curved arc at the top, and three wavy, horizontal bands below it, representing water or waves. The colors are a soft, pastel blue.

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	July 2022	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>		0	
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>		0	
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 treatment systems.

The most recent MECP inspections are listed below:

Location	Inspector	Inspection Rating (%)	Date
Casselman Water	Jean-Francois Durocher	100	March 10, 2022
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 received accreditation for Casselman’s Drinking Water System in August 2019.

The 2021 Surveillance Audit was conducted by SAI Global on July 23, 2021. There were no non-conformances identified. One Opportunity for Improvement (OFI) was noted in the report for Element 19 regarding the timing of the annual internal audit, suggesting that it be completed prior to the external audit in each year.

SECTION 6 - MAINTENANCE / CAPITAL / ADDED VALUE

Water Treatment & Distribution

- Responded to nine call-in alarms

Wastewater Treatment & Collection

- Responded to one call-in alarm

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

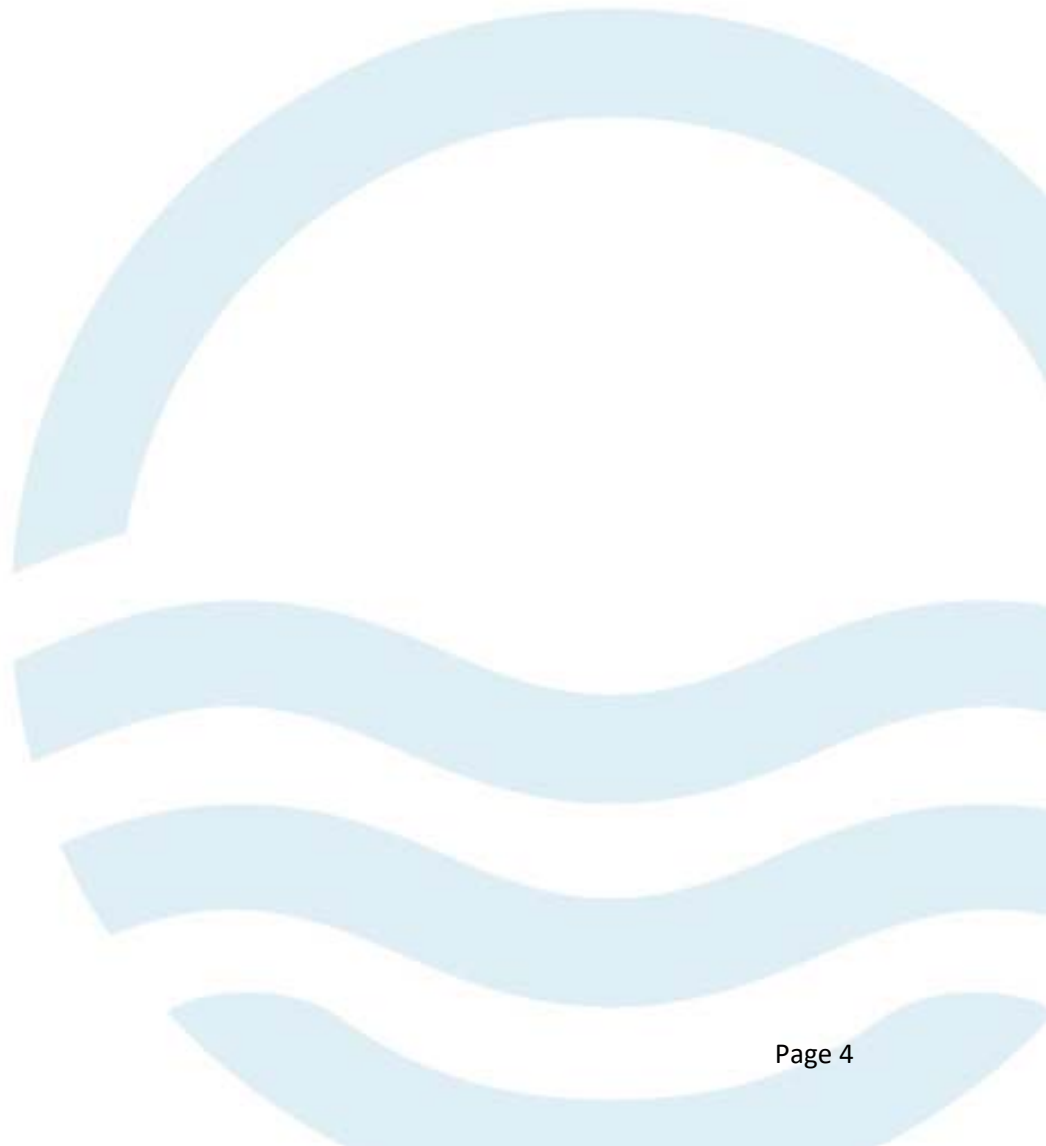
- 52 locates completed in July
- Approved Capital & Major Maintenance work for 2022 is ongoing

Water Treatment & Distribution

- OCWA is working with JLR and H2Flow on a pilot study using manganese dioxide filters at the WTP which is planned to take place at the end of August.

Wastewater Treatment & Collection

- Wastewater sampling as part of Queen’s University’s Covid sampling program continued in July.



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: 2022
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)	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
JAN	30632	988	1389	0.96	2.60	1.08	2.48	6.00	6.00	398.00	0.10	0.12	3.30	3.30	401.00	0.09	0.72	58.00	41.30
FEB	28433	1015	1367	0.78	2.60	1.06	2.37	3.60	4.70	478.00	0.18	0.90	2.00	2.50	480.00	0.08	0.14	-	-
MAR	31167	1005	1296	1.32	2.61	0.50	2.61	7.30	9.70	138.00	0.17	0.72	3.70	4.20	287.00	0.12	0.58	-	-
APR	31432	1048	1373	0.75	2.59	0.85	2.10	7.70	7.70	267.00	0.08	0.09	3.40	3.40	264.00	0.03	0.04	58.00	43.40
MAY	37972	1225	2029	0.39	2.24	1.04	2.10	6.30	6.30	285.00	0.11	0.19	2.90	2.90	282.00	0.03	0.07	-	-
JUN	37112	1237	1483	0.73	3.25	0.85	2.20	7.30	7.30	308.00	0.09	0.15	3.50	3.50	308.00	0.02	0.04	-	-
JUL	40529	1307	1618	0.44	2.74	0.58	1.83	7.80	7.80	344.00	0.18	0.35	3.70	3.70	333.00	0.03	0.04	163.00	126.00
AUG																			
SEP																			
OCT																			
NOV																			
DEC																			
TOTAL	237,276																		
AVG		1,118						6.57	7.07	316.86	0.13		3.21	3.36	336.43	0.06		93.00	70.23
MAX			2,029		3.25		2.61					0.90					0.72		
MIN				0.39		0.50													
CRITERIA			3,182	CT		0.25	3.00											<100	<80

MONTH	SYSTEM FLOWS (RAW)			ACTIFLO FILTER #1		ACTIFLO FILTER #2		Efficiency	FILTER	TREATED			<i>E. coli</i> / Total Coliform / HPC (Number of Samples Collected)				RAW WATER		
	Total Flow (m ³)	Avg. Day Flow (m ³)	Max. Flow (m ³)	Avg. Turbidity (NTU)	Max. Turbidity (NTU)	Avg. Turbidity (NTU)	Max. Turbidity (NTU)	Turbidity % < 0.3 NTU	Backwash SS (mg/L)	Avg. Turbidity (NTU)	Max. Turbidity (NTU)	Min UV Intensity (mJ/cm ²)	Safe		Adverse		Max. Count	Max. Count	
													Treated	Distribution	Treated	Distribution			
JAN	38152	1231	1618	0.07	0.38	0.35	0.80	99.97	<3	0.37	0.60	61.00	5	15	0	0	140	38	
FEB	34681	1239	1686	0.08	0.24	0.06	0.69	99.93	7	0.61	0.98	70.00	4	12	0	0	17600	117	
MAR	37198	1200	1546	0.11	0.39	0.07	0.78	99.85	3	0.53	0.94	67.00	4	12	0	0	180	51	
APR	38033	1268	1824	0.13	0.33	0.10	0.60	99.88	6	0.34	0.97	76.00	4	12	0	0	470	20	
MAY	46116	1488	2668	0.17	0.75	0.15	0.86	97.98	14	0.48	3.33	55.00	5	15	0	0	180	32	
JUN	45684	1523	1796	0.14	0.41	0.13	0.78	99.39	3	0.50	0.76	56.00	4	12	0	0	260	28	
JUL	49779	1606	2058	0.18	0.61	0.16	0.53	98.24	5	0.65	1.11	52.00	4	12	0	0	29	11	
AUG																			
SEP																			
OCT																			
NOV																			
DEC																			
TOTAL	289,644												30	90	0	0			
AVG		1,365		0.13		0.15		99.32	5.6	0.50									
MAX			2,668		0.75		0.86		14		3.33						17600	117	
MIN												52.00							
CRITERIA			3,182		<1		<1	>95%			<5	>40							

COMMENTS:

Appendix B

Work Order Summary Reports



Monthly Work Order Summary – July 2022

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 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
Meter Level Inspection/Service (3m) 5971	APPR	PM
Pump Submersible ACTIFLO Inspection (3m) 5971	APPR	PM
PANEL ALARM/DIALER TEST (1m) - 5971	COMP	PM
UV Light Bank Insp/Service (1m) - 5971	COMP	PM
Workplace Inspection (1m) - 5971	COMP	OPER
Monthly H&S Equipment Check (1m) - 5971	APPR	PM
Quarterly 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
Casselman 5971 WTP - High chlorine in clearwell	COMP	CALL
Casselman 5971 WTP - Low chlorine in clearwell and UV alarms	COMP	CALL
5971 - Casselman WTP - Alarm on security system - false alarm on lab motion sensor	COMP	OPER
UV Sensor Reference Check/Calibration (1m) - 5971	COMP	PM
Distribution system alarm	COMP	CALL
Backwash process alarm	COMP	CALL
Casselman WTP 5971 UV System repairs and parts	APPR	CAP
Casselman 5971 WTP - Low total and combined chlorine at SPS 1	COMP	CALL
Casselman 5971 Actiflo 1 fault low chlorine	COMP	CALL
Casselman 5971 WTP - SPS 1 low total and combined chlorine	COMP	CALL
Casselman 5971 WTP - High total chloramine and Chlorine pump 2 panel issues	COMP	CALL
Casselman 5971 WTP - Actiflo 2 recirculation pump low pressure	COMP	CALL

Monthly Work Order Summary – July 2022
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
Monthly H&S Equipment Check (1m) - 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
Casselman Sewage 1501 -No communications	COMP	CALL

Appendix C

Locate Summary



Casselman Monthly Locate Summary – July 2022

Description	Status	Work Type
Locate Casselman WDS 1553 - 20222714110 - Principale St.	COMP	OPER
Locate Casselman WDS 1553 - 20222714226 - 641 Principale St	COMP	OPER
Locate Casselman WDS 1553 - 2022717103 - 508 Barrage St	COMP	OPER
Locate Casselman WDS 1553 - 20222717109 - 533 Barrage St	COMP	OPER
Locate Casselman WDS 1553 - 20222719676 - 537 Barrage St	COMP	OPER
Locate Casselman WDS 1553 - 2022281929 - 220 Nature St	COMP	OPER
Locate Casselman WDS 1553 - 20222720829 - 654 St Joseph St	COMP	OPER
Locate Casselman WDS 1553 - 20222817190 - 17 Industrial	COMP	OPER
Locate Casselman WDS 1553 - 20222821745 - 672 Principale St	COMP	OPER
Locate Casselman WDS 1553 - 20222823641 - 672 Principale St	COMP	OPER
Locate Casselman WDS 1553 - 20222824076 - 645 Principale St	COMP	OPER
Locate Casselman WDS 1553 - 2022290266 - HWY 417	COMP	OPER
Locate Casselman WDS 1553 - 2022290271 - HWY 417	COMP	OPER
Locate Casselman WDS 1553 - 20222912296 - 3 Castonguay	COMP	OPER
Locate Casselman WDS 1553 - 20222914534 - 821 Principale	COMP	OPER
Locate Casselman WDS 1553 - 2022299576 - 759 St Jean	COMP	OPER
Locate Casselman WDS 1553 - 20222917347 - HWY 417	COMP	OPER
Locate Casselman WDS 1553 - 20222817218 - 98 Lafleche	COMP	OPER
Locate Casselman WDS 1553 - 20222820605 - Laurier St	COMP	OPER
Locate Casselman WDS 1553 - 2022294764 - 597 St Isidore	COMP	OPER
Locate Casselman WDS 1553 - 2022294856 - 656 Dollard	COMP	CAP
Locate Casselman WDS 1553 - 2022299080 - 674 Jeanne Mance	COMP	CAP
Locate Casselman WDS 1553 - 20222916270 - 697 Dollard	COMP	CAP
Locate Casselman WDS 1553 - 20222918043 - 632 Principale	COMP	CAP
Locate Casselman WDS 1553 - 20222920581 - 112 Argile	COMP	CAP
Locate Casselman WDS 1553 - 20222922291 - 792 Ste Therese	COMP	CAP
Locate Casselman WDS 1553 - 2022245244 - 28 Faucher	COMP	CAP
Locate Casselman WDS 1553 - 20222926613 - 349 Dore St.	COMP	CAP
Locate Casselman WDS 1553 - 20222926821 - 544 Barrage St	COMP	CAP
Locate Casselman WDS 1553 - 20222911112 - 675 to 681 Des Erables	COMP	CAP
Locate Casselman WDS 1553 - 2022303007 - 200 Nature St	COMP	CAP
Locate Casselman WDS 1553 - 2022303189 - Sarah St.	COMP	CAP
Locate Casselman WDS 1553 - 2022304154 - Laurier and Brebeuf	COMP	CAP
Locate Casselman WDS 1553 - 2022306710 - 15 Percy St.	COMP	CAP
Locate Casselman WDS 1553 - 20222923043 - 660 Des Epinettes	COMP	CAP
Locate Casselman WDS 1553 - 2022308702 - Zakari St.	COMP	CAP
Locate Casselman WDS 1553 - 20223012071 - 95 Lafleche	COMP	CAP
Locate Casselman WDS 1553 - 20223013220 - Conservation St.	COMP	CAP
Locate Casselman WDS 1553 - 20223015276 - 688 - 680 Montcalm	COMP	CAP
Locate Casselman WDS 1553 - 20223022199 - 304 Dore St.	COMP	CAP

Casselman Monthly Locate Summary – July 2022

Locate Casselman WDS 1553 - 20223022240 - 321 Dore St.	COMP	CAP
Locate Casselman WDS 1553 - 20223022263 - 401 Dore St.	COMP	CAP
Locate Casselman WDS 1553 - 20223022523 - 410 Dore St.	COMP	CAP
Locate Casselman WDS 1553 - 2022311401 - 341 Dore St.	COMP	CAP
Locate Casselman WDS 1553 - 20223022560 - 124 Argile St.	COMP	CAP
Locate Casselman WDS 1553 - 20223023413 - Brebeuf St.	COMP	CAP
Locate Casselman WDS 1553 - 20223023532 - HWY 417	COMP	CAP
Locate Casselman WDS 1553 - 20223025502 - 41 Faucher	COMP	CAP
Locate Casselman WDS 1553 - 20223025856 - 848 Laval St.	COMP	CAP
Locate Casselman WDS 1553 - 202231913 - 646 Principale St	COMP	CAP
Locate Casselman WDS 1553 - 20223110527 - 657 St Joseph St	COMP	CAP
Locate Casselman WDS 1553 - 20223115410 - 776 St Joseph St	COMP	CAP
Total		52