

# Monthly Operations Report

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for the Municipality of Casselman's Water and  
Wastewater Systems

April 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	April 2022	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	N/A	N/A	
<i>Target Achieved</i>		N/A	
<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	N/A	N/A	
<i>Target Achieved</i>		N/A	
<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.

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 fourteen call-in alarms
- Repaired water service on Gagne Street
- Cleaned out raw water, backwash and supernatant tanks at WTP
- Replaced actuator and valve on FV-2107, Actiflo #1 filter effluent
- Capital Controls in to address communication issue at WTP

### Wastewater Treatment & Collection

- Responded to five call-in alarms
- Cleaned out wet well at SPS #6

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

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

OCWA has begun tagging equipment in the wastewater treatment and collection system in order to complete the PMP. This work is expected to be complete by the end of the summer.

## SECTION 7 – COMPLAINTS

Facility	Date	Description
None to report		

## SECTION 8 – RECOMMENDATIONS / GENERAL COMMENTS

### General

- 46 locates completed in April
- Capital for 2022 has been approved. OCWA has begun work on capital projects for the year.
- OCWA completed the initial phase of the water and wastewater capacity assessment for the Municipality. To be presented to Council in May.

### Water Treatment & Distribution

- Hydrant flushing in the distribution system will take place in May.

### Wastewater Treatment & Collection

- Substantial completion of the treatment upgrades will be declared soon. Performance test at full hydraulic capacity was completed in April.
- Wastewater sampling as part of Queen’s University’s Covid sampling program continued in April.

# 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:** 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 <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)	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
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																			
JUN																			
JUL																			
AUG																			
SEP																			
OCT																			
NOV																			
DEC																			
TOTAL	121,664																		
AVG		1,014						6.15	7.03	320.25	0.13		3.10	3.35	358.00	0.08		58.00	42.35
MAX			1,389		2.61		2.61					0.90					0.72		
MIN				0.75		0.50													
CRITERIA			<b>3,182</b>	<b>CT</b>		<b>0.25</b>	<b>3.00</b>											<b>&lt;100</b>	<b>&lt;80</b>

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 <sup>3</sup> )	Avg. Day Flow (m <sup>3</sup> )	Max. Flow (m <sup>3</sup> )	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 <sup>2</sup> )	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																		
JUN																		
JUL																		
AUG																		
SEP																		
OCT																		
NOV																		
DEC																		
TOTAL	148,064												17	51	0	0		
AVG		1,234		0.10		0.15		99.91	4.4	0.46								
MAX			1,824		0.39		0.80		7		0.98						17600	117
MIN												61.00						
CRITERIA			<b>3,182</b>		<b>&lt;1</b>		<b>&lt;1</b>	<b>&gt;95%</b>			<b>&lt;5</b>	<b>&gt;40</b>						

COMMENTS:





# Appendix B

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## Work Order Summary Reports



## Monthly Work Order Summary – April 2022

### Casselman Drinking Water System

Description	Status	Work Type
Actuator (air) Inspection/Service (1y) 5971	APPR	PM
AHU Service (1y) 5971	APPR	PM
Analyzer Total Chlorine Inspection/Service (1m) 5971	COMP	PM
Chlorinator Service (1y) 5971	APPR	PM
Analyzer pH Inspection/Service (1m) 5971	COMP	PM
Analyzer Turbidity Inspection/Service (1m) 5971	APPR	PM
Blower Centrifugal Inspection/Service (1m) 5971	APPR	PM
Air Compressor Inspection/Service (1m) 5971	COMP	PM
Dryer Air Service (1m) - 5971	APPR	PM
Gear Drive Sludge Pump Service (6m) - 5971	APPR	PM
Generator Inspection (1m) 5971	APPR	PM
Meter Level Inspection/Service (3m) 5971	APPR	PM
Sensor Gas Monitor Insp (6m) 5971	COMP	PM
Pump Submersible ACTIFLO Inspection (3m) 5971	APPR	PM
PANEL ALARM/DIALER TEST (1m) - 5971	APPR	PM
UV Light Bank Insp/Service (1m) - 5971	APPR	PM
Workplace Inspection (1m) - 5971	COMP	PM
Annual Management Review (1y) -Casselman 5971	APPR	PM
Monthly H&S Equipment Check (1m) - 5971	COMP	PM
Quarterly H&S Equipment Check (1m) - 5971	APPR	PM
UVT Sensor Checks/Calibration (1m) - 5971	APPR	PM
Pump Diaphragm Coagulant Route Inspection/Service (1m) 5971	COMP	PM
Pump Diaphragm Polymer Route Inspection/Service (1m) 5971	APPR	PM
Pump Diaphragm Sodium Hydroxide Route Inspection/Service (1m) 5971	APPR	PM
Pump Diaphragm Ammonium Sulphate Route Inspection/Service (1m) 5971	APPR	PM
Pump Diaphragm Potassium Permanganate Route Inspection/Service (1m) 5971	APPR	PM
CI 12:30-20:00 Power Failures due to high winds 5971	COMP	CALL
UV Sensor Reference Check/Calibration (1m) - 5971	APPR	PM
CI 20:15-21:45 Actiflo #2 High Filtered NTU 5971	COMP	CALL
CI @ 10:56 High eff turbidity Actiflo #2, CASS WTP, 5971	COMP	CALL
CI @ 21:48 high Settled turb actiflo 2 , CASS WTP, 5971	COMP	CALL

## Monthly Work Order Summary – April 2022 Casselman Drinking Water System

DNB - Casselman 5971 Wet well cleaning(raw, backwash, supernate)	APPR	CAP
Casselman 5971 - emergency repair on plant communications	COMP	CAP
Water Service repair - 9 Gagne St.	COMP	CORR
Aciflo 1 Backwash process alarm 5971	COMP	CALL
Aciflo 1 Backwash process alarm 5971	COMP	CALL
Waste process water alarm 5971	COMP	CALL
Distribution low total cl2 sps1	COMP	CALL
Casselman 5971 Actiflo 1 fault/low raw water tank	COMP	CALL
DNB- Daily O&M Casselman 5971 Supplies	APPR	CAP
ci at 20h30 for actiflow 2 high ntu alarm due to BW on #1 5971	COMP	CALL
Recirculation actiflo 2 fault	COMP	CALL
CLEAR WELL , HIGH LIFT PUMP (1y) - 5971	APPR	PM
Waste Water Process alarm 5971	COMP	CALL
Actiflo #2 alarm high settle turbidity 5971	COMP	CALL
Actiflow #2 Recirculaiton sand pump low pressure 5971	COMP	CALL

**Monthly Work Order Summary – April 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	APPR	PM
casselman sewage alum bldg communication fail 1501	COMP	CALL
Communication fault/power failure Cass sewage	COMP	CALL
SPS#3 Low Level Critical 1501	COMP	CALL
Multi smart at Alum building fault/Power failure 1501	COMP	CALL
Low room temperature at SPS#6 1501	COMP	CALL
CI 1:00-2:30 Multismart PLC Communication fail 1501	COMP	CALL
SPS 3 low level critical alarms	COMP	CALL
DNB - Casselman Sewage Pumping Stations 1501 Cleaning	APPR	CAP

# Appendix C

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## Locate Summary



## Casselman Monthly Locate Summary – April 2022

Description	Status	Work Type
Locate Casselman WDS 1553 - 20221519117 - 679 Des Cedres	COMP	OPER
Locate Casselman WDS 1553 - 2022154683 - 683 Des Cedres	COMP	OPER
Locate Casselman WDS 1553 - 20221419141 - 27 and 29 Sarah St	COMP	OPER
Locate Casselman WDS 1553 - 20221423882 - Conservation St.	COMP	OPER
Locate Casselman WDS 1553 - 20221317949 - Laurier and Brebeuf St	COMP	OPER
Locate Casselman WDS 1553 - 20221513408 - 821 and 823 Principale	COMP	OPER
Locate Casselman WDS 1553 - 20221530458 - 36 Fillion	COMP	OPER
Locate Casselman WDS 1553 - 20221531063 - 619 to 620 St Isidore St.	COMP	OPER
Locate Casselman WDS 1553 - 2022174725 - 20 Industrial	COMP	OPER
Locate Casselman WDS 1553 - 2022154743 - Dore St.	COMP	OPER
Locate Casselman WDS 1553 - 2022152513 - 324 Dore St.	COMP	OPER
Locate Casselman WDS 1553 - 20221521471 - 316 Dore st.	COMP	OPER
Locate Casselman WDS 1553 - 20221625954 - 524 Barrage St.	COMP	OPER
Locate Casselman WDS 1553 - 20221726345 - 150 Laurier St.	COMP	OPER
Locate Casselman WDS 1553 - 20221726343 - 75 Laurier St.	COMP	OPER
Locate Casselman WDS 1553 - 20221726346 - 738 St Jean	COMP	OPER
Locate Casselman WDS 1553 - 2022172294 - 129 Argile St.	COMP	OPER
Locate Casselman WDS 1553 - 2022174117 - 653 Des Epinettes	COMP	OPER
Locate Casselman WDS 1553 - 2022171426 - 124 Argile St.	COMP	OPER
Locate Casselman WDS 1553 - 20221712030 - 776 Aurele Rd.	COMP	OPER
Locate Casselman WDS 1553 - 2022165983 - 528 Barrage St.	COMP	CAP
Locate Casselman WDS 1553 - 20221622878 - 131 Laurier St.	COMP	CAP
Locate Casselman WDS 1553 - 20221612868 - 397 Dore St.	COMP	CAP
Locate Casselman WDS 1553 - 2022159768 - Principal St.	COMP	CAP
Locate Casselman WDS 1553 - 2022169624 - 825 St. Isidore St.	COMP	CAP
Locate Casselman WDS 1553 - 2022169313 - Richer Close	COMP	CAP
Locate Casselman WDS 1553 - 2022169164 - Conservation St.	COMP	CAP
Locate Casselman WDS 1553 - 20221713227 - Conservation St.	COMP	CAP
Locate Casselman WDS 1553 - 20221713322 - Conservation St.	COMP	CAP
Locate Casselman WDS 1553 - 20221521284 - Conservation St.	COMP	CAP
Locate Casselman WDS 1553 - 20221728752 - 49 to 47 Isabelle	COMP	CAP
Locate Casselman WDS 1553 - 20221719746 - Zakari St	COMP	CAP
Locate Casselman WDS 1553 - 20221731222 - 9 Gagne Cres	COMP	CAP
Locate Casselman WDS 1553 - 202220221822904 - 778 Brebeuf	COMP	CAP
Locate Casselman WDS 1553 - 20221823755 - 16 Sarah	COMP	CAP
Locate Casselman WDS 1553 - 2022187384 - 713 Brebeuf	COMP	CAP
Locate Casselman WDS 1553 - 20221821511 - 41 Faucher	COMP	CAP
Locate Casselman WDS 1553 - 20221726896 - 700 Des Pins Cerele	COMP	CAP
Locate Casselman WDS 1553 - 2022189594 - 36 Desnoyers St	COMP	CAP
Locate Casselman WDS 1553 - 20221814097 - 95 Lafleche	COMP	CAP
Locate Casselman WDS 1553 - 20221711546 - 397 Dore St.	COMP	CAP
Locate Casselman WDS 1553 - 2022169379 - 340 Dore St	COMP	CAP
Locate Casselman WDS 1553 - 20221822976 - 715 Brebeuf	COMP	CAP
Locate Casselman WDS 1553 - 2022105462 - 760 Levesque Cres	COMP	CAP
Locate Casselman WDS 1553 - 20221829584 - Principale St	COMP	CAP
Locate Casselman WDS 1553 - 20221829616 - 626 Principale St.	COMP	CAP
Total		46