

SYSTEM OVERVIEW

January 1 to March 31, 2023

HIGHLIGHTS

- The auto flusher located at the end of Roach Street was inspected and proven operational. This was prompted after several water complaints were observed in the area.
- A hydrant was damaged during snow plowing at Georgina Street and Calbeck Avenue. New parts were ordered - new rings, sleeves and flange were replaced on the hydrant. The repaired hydrant was re-installed.
- OCWA requested to assist in curb stop repairs. Work was done alongside municipal employees and repairs to curb stop were done to stop a substantial leak in the distribution system.
- Sodium hypochlorite metering pump required new parts. A new diaphragm was installed as well as new check valves and seals.

CAPITAL PLAN PROGRESS

Status of capital work completed to date in 2023.

CAPITAL ITEM	STATUS
HAA sampling (4 x per year)	Complete - January
Fire hydrant repairs at Georgina Street and Calbeck Avenue	Complete
Sodium hypochlorite chlorite pump parts	Complete
Curb stop repairs	Complete
Reclaim tank – sludge haul	One haul in January

INCIDENTS

No incidents occurred this quarter.

COMPLAINTS

Four (4) complaints were documented this quarter.

January - Residents complained of discoloured (black) water. The reclaim tank at the water plant was emptied which addressed the colour issues.

February & March - Residents complained of particulates in the water. Reclaim tank to be emptied more often to help resolve with these complaints.

CALL-OUT SUMMARY

Number of Call-outs this Quarter:	1
Total Call-outs to Date (2023):	1
Annual Call-in Allowance:	8
Details of the Call-outs:	Refer to Appendix A for a detailed call back summary.

REGULATORY

Inspections

- No regulatory inspections were conducted this quarter.

Quality & Environmental Management System (QEMS)

- No audits were conducted this quarter.

Sampling, Testing and Monitoring

- Refer to Appendix B for a Performance and Quarterly Data Summary.

Reporting

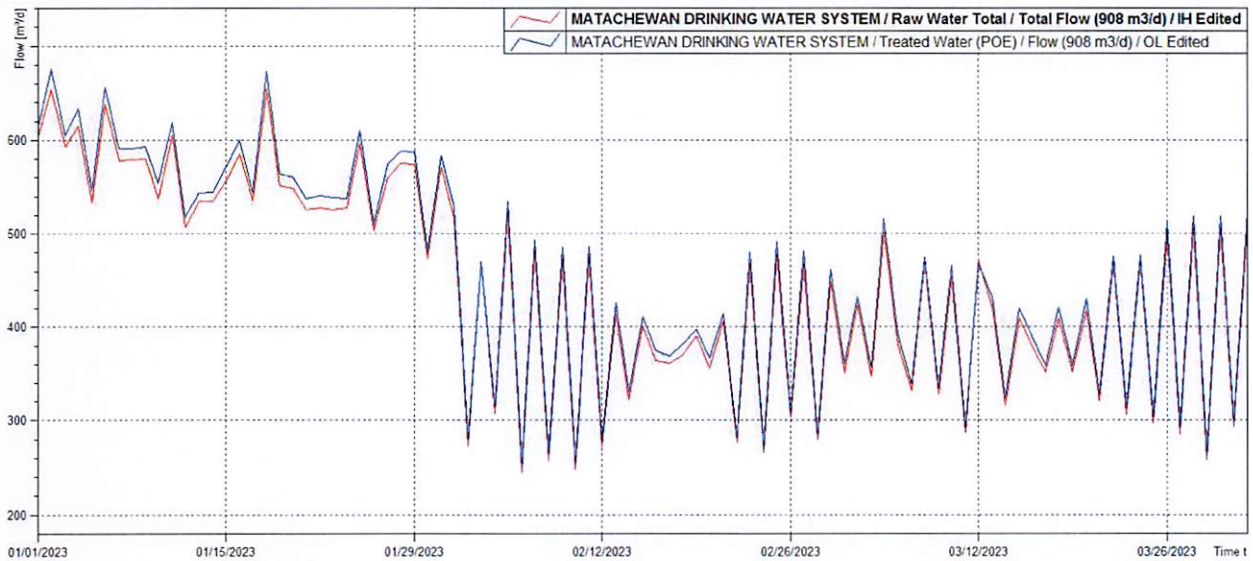
- Regulatory year-end reporting for 2022 complete.

FLOW SUMMARY

Matatchewan Water Treatment Plant – Historical Flow Comparison

Year	Total Raw Flows (m ³ /d)	Total Treated Flows (m ³ /d)	Average Daily Treated Flow (m ³ /d)	Maximum Treated Flow (m ³ /d)	Maximum % of Rated Capacity (908 m ³ /d)
Jan. to Mar. 2023	40,018	40,929	455	676	74.4%
2022	144,908	148,335	406	766	84.4%
2021	134,554	137,353	376	642	70.7%
2020*	131,311	133,019	363	827	91.1%
2019	108,798	112,259	308	955	105%

* 2020 - The plant underwent a major upgrade to install an iron and manganese removal filter system (Filtronics brand), to remove the existing iron and manganese sequestering system. The project was completed in December 2019 and was put into operation in 2020.



HEALTH AND SAFETY

- All safety equipment at each plant was checked monthly to ensure that they are in good working order.
- Health and Safety Training/Sessions completed this quarter include:
 - ✓ WHMIS Training
 - ✓ Workplace Inspection Program
 - ✓ Transportation of Dangerous Goods



APPENDIX A

Call-out Summary

Workorder Summary Report

Report Start Date: Jan 1, 2023 12:00 AM
 Report End Date: Mar 31, 2023 11:59 PM
 Location: 7203*
 Work Order Type: CALL,
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finish	WorkLog Detail
3201310			7203, Matachewan WTP, Facility	CALL	Compliance	0		Matachewan WTP Low Tower alarm	CLOSE		12/25/22 12:15 AM	12/25/22 08:15 AM	Matachewan WTP Low Tower alarm. Matachewan WTP Low Tower alarm, caused by well 1 being interlocked, due to reaching its raw daily flow limit and plant not being able to run. And well 2 being locked out due to well issues. upon arrival to the plant, raw water interlock was able to be reset, and plant was able to start back up. start up plant, and monitor operations until we were out of tower low level alarm.

Report Start Date: Jan 1, 2023 12:00 AM
 Report End Date: Mar 31, 2023 11:59 PM
 Location: 7203*
 Work Order Type: CALL,
 Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details				WorkLog Detail	
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start		Actual Finish
3201312			7203, Matachewan WTP, Facility	CALL	Compliance	0		Matachewan WTP Low Tower alarm	CLOSE		12/25/22 03:45 PM	12/25/22 11:45 PM	- - - Matachewan WTP Low Tower alarm - Low tower level well 1 interlock by using full amount of daily cubes of water. [454m3] Put well 2 back online run it until midnight. monitor plant operations to ensure that no issues occur with well 2 while filling the tower. At midnight the tower was still filling and the well 1 interlock had reset. Switch to well 1 and lock out well 2 again. monitor plant operations.
3201975			7203, Matachewan WTP, Facility	CALL	Compliance	0		Matachewan WTP LOW FCL pant lockout	CLOSE		12/28/22 07:45 PM	12/28/22 11:45 PM	Matachewan WTP LOW FCL pant lockout - Matachewan WTP LOW FCL pant lockout Plant locked out on low filter FCL Run and flush plant until Compliant once water had a compliant FCL residual. Divert water back to distribution and start filling tower.

Workorder Summary Report

Report Start Date: Jan 1, 2023 12:00 AM
 Report End Date: Mar 31, 2023 11:59 PM
 Location: 7203*
 Work Order Type: CALL,
 Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finish	
3203250	0000323792	ANALYZER CHLORINE TREATED	7203, Matachewan WTP, Process, Process Controls	CALL	Compliance	0		ALARM - Low Cl2 Compliance 7203	CLOSE		1/10/23 05:00 PM	1/10/23 10:00 PM	ALARM - Low Cl2 Compliance 7203 Found the filter and Comp analyzers 0 mg/l. The injector was cleaned, but still could not pump hypo I had to replace the Hypo pump. I ran both the wells to determine pump speeds run water to bypass to drain contact pipes.
3206256			7203, Matachewan WTP, Facility	CALL	Refurbish/ Replace/Repair	0		Alarm Low Chlorine Plant Lockout, 7203	COMP		1/18/23 03:00 AM	1/18/23 07:00 AM	Alarm Low Chlorine Plant Lockout, 7203 Low Compliance Chlorine Alarm - Filter to waste until chlorine residual restored -Increased Well hypo pump speed to 13 from 12

Workorder Summary Report

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 Work Order Type: CALL,
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WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details				WorkLog Detail	
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start		Actual Finish
3243914			7203, Matachewan WTP, Facility	CALL	Compliance	0		Matachewan WTP Low FCL Plant Lockout	COMP		1/25/23 06:00 PM	1/25/23 10:00 PM	Matachewan WTP Low FCL Plant Lockout Received a Call for Matachewan WTP Low FCL Plant Lockout Plant was locked out on low Filter FCL. Tried to restart the plant but the filters were not getting any chlorine. I stopped the plant, disassembled the hypo pump, cleaned check valves and injector, then reassembled. Cleaning the pump components solved the problem. I then Restarted the plant, flushed until the chlorine residual was compliant, and then proceeded to send water back to the distribution system.
3288059	0000090453	ANALYZER CHLORINE FILTER	7203, Matachewan WTP, Process, Process Controls	CALL	Compliance	0		ALARM - Low Cl2 FILTER 7203	COMP		3/4/23 10:00 AM	3/4/23 02:00 PM	ALARM - Low Cl2 Compliance 7203 Found the filter Cl2 analyzer low lock out. I cleaned the hypo pump injector, ran the water to bypass. Monitor normal ops.



APPENDIX B
Quarterly Data Summary

MATACHEWAN DRINKING WATER SYSTEM

Quarterly Data Report



Q1: January 1 to March 31, 2023

Matatchewan Drinking Water System		January	February	March	Compliance
Flows					
Raw Flow - Maximum Daily Volume	m ³ /d	654	523	506	Max. = 908
Well 1 Flow - Maximum Daily Volume	m ³ /d	454	454	454	Max. = 454
Well 1 Flow - Maximum Flow Rate	L/min	1210	1240	1225	Max. = 1400
Well 2 Flow - Maximum Daily Volume	m ³ /d	216	155	100	Max. = 454
Well 2 Flow - Maximum Flow Rate	L/min	1080	1098	1065	Max. = 1400
Treated Flow - Maximum Daily Volume	m ³ /d	676	535	519	Max. = 908
Treated Flow Maximum Flow Rate	L/min	763	697	692	Max. = 840
Raw Water					
Well 1 Turbidity - Maximum	NTU	0.44	1.43	1.13	N/A
Well 2 Turbidity - Maximum	NTU	0.38	1.34	2.57	N/A
Well 1 Total Coliforms - Maximum	c/100mL	0	0	0	N/A
Well 1 <i>E.coli</i> - Maximum	c/100mL	0	0	0	N/A
Well 2 Total Coliforms - Maximum	c/100mL	0	0	2	N/A
Well 2 <i>E.coli</i> - Maximum	c/100mL	0	0	0	N/A
Treated Water					
Free Chlorine Residual	mg/L	0.34	1.18	0.47	Min. = 0.15 (CT) ¹
Total Coliforms - Maximum	c/100mL	0	0	0	Max. = 0
<i>E.coli</i> - Maximum	c/100mL	0	0	0	Max. = 0
Nitrite	mg/L	< 0.01	-	-	Max. = 1
Nitrate	mg/L	0.5	-	-	Max. = 10
Distribution Water					
Free Chlorine Residual	mg/L	1.23	0.72	0.50	Min. = 0.05
Total Coliforms - Maximum	c/100mL	0	0	0	Max. = 0
<i>E.coli</i> - Maximum	c/100mL	0	0	0	Max. = 0
Trihalomethanes (THMs)	µg/L	62.1	-	-	Max. = 100 µg/L (RAA) ²
Haloacetic Acids (HAAs)	µg/L	78	21	74	Max. = 80 µg/L (RAA) ³
Lead	µg/L	-	-	<0.1	Max. = 10 µg/L ⁴
Alkalinity	mg/L	-	-	218	N/A ⁵

MATACHEWAN DRINKING WATER SYSTEM Quarterly Data Report



Q1: January 1 to March 31, 2023

Notes:

- 1** CT is the concentration of chlorine in the water times the time of contact that the chlorine has with the water. It is used to demonstrate the level of disinfection treatment in the water. CT calculations are performed for the Matachewan water plant if the free chlorine residual level drops below 0.15 mg/L to ensure primary disinfection is achieved. Primary disinfection was achieved this quarter.
- 2** Maximum Allowable Concentration (MAC) for Trihalomethanes (THMs) = 100 ug/L (Four Quarter Running Average). The annual running average to the end of the quarter = 64.4 ug/L
- 3** Maximum Allowable Concentration (MAC) for Haloacetic Acids (HAAs) = 80 ug/L (Four Quarter Running Average). The annual running average to the end of the quarter = 76.7 ug/L
- 4** Lead testing required every 3 years.
- 5** Alkalinity testing required twice per year. Sampling is done in March and September of each year.