Madoc
Drinking Water System
Annual Water Report

Reporting period of January 1, 2024 – December 31, 2024

Prepared For: Corporation of the Municipality of Centre Hastings

Prepared By: Ontario Clean Water Agency
Agence Ontarienne Des Eaux

This report has been prepared to satisfy the annual reporting requirements of the Provincial Regulations and Guidelines established by the Ministry of the Environment in the Province of Ontario including the section 11 and Schedule 22 reports identified in O.Reg 170/03, Drinking Water Systems Regulation and the Permit to Take Water Reports identified in O.Reg 387/04, Water Taking and Transfer Regulation.

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Compliance Report Card

Drinking Water System Number:	220001575
System Owner:	Corporation of the Municipality of Centre Hastings
Operating Authority:	Ontario Clean Water Agency
Drinking Water System Category:	Large Municipal Residential
Reporting Period:	January 1, 2024 – December 31, 2024

Report Availability

Population Served:	**< 10,000**
Website where the annual report can be viewed by the public:	www.centrehastings.com
Alternate location were annual report will be available for inspection and is free of charge:	Municipal Office
How are system users notified that the annual report is available and is free of charge?	Public access/notice via Municipal Website
Number of Designated Facilities served:	None
Has a copy of this report been provided to all Designated Facilities?	N/A
Number of Interested Parties reported to:	N/A
Has a copy of this report been provided to all Interested Parties?	N/A
The following Drinking-Water Systems receive drinking water from this system:	N/A
Has a copy of this report been provided to connected owners?	N/A

Event Summary	# of Events	Date	Details
Ministry of Environment Inspections	1	Oct 09 2024	Announced Focused - No Non-Compliances identified. 100.00% Inspection Risk Rating.
Ministry of Labour Inspections	0		
DWQMS Audits	1	July 19 2024	S2 Audit performed by SAI Global
AWQI's	1	Sept 19 2024	Operational – Well Riser Pipe Repair
Non-Compliance	0		
Community Complaints	0		
Spills	0		

Quality Control Measures

Corporation of the Municipality of Centre Hastings facilities are part of OCWA's operational Trent Valley Hub. The facilities are supported by hub, regional and corporate resources. Operational Services are delivered by OCWA staff that live and work in the surrounding area. OCWA operates facilities in compliance with applicable regulations. The facility has comprehensive manuals detailing operations, maintenance, instrumentation, and emergency procedures. All procedures are treated as active documents, with annual reviews.

OCWA has additional "Value Added" and operational support services that Corporation of the Municipality of Centre Hastings benefits from including:

- Access to a network of operational compliance and support experts at the regional and corporate level, as well as affiliated programs that include the following:
    - Quality & Environmental Management System, Occupational Health & Safety System and an internal compliance audit system.
    - PDM (WISKI) facility operating information repository, which consolidates field data, online instrumentation, and electronic receipt of lab test results for reporting, tracking and analysis.
    - Work Management System (WMS) tracks and reports maintenance activities, and creates predictive and preventative reports.
    - Wonderware wide-area SCADA system allows for process optimization and data logging, process trending, remote alarming and optimization of staff time.
- Client reporting which includes operational data, equipment inventory, financial statements, maintenance work orders, and capital status reports
- Site-Specific Contingency Plans and Standard Operating Procedures
- Use of accredited laboratories
- Access to a network of operational compliance and support experts at the hub, region and corporate level
- Additional support in response to unusual circumstances, and extra support in an emergency.
- Use of sampling schedules for external laboratory sampling

System Process Description

Raw Source

Raw water source for the Madoc Drinking Water System are two groundwater wells. The Rollins Well (Well 3) is considered the main water supply well, while the Marmora Well (Well 4) is proposed as a secondary standby well.

Treatment

Madoc Drinking Water System is a two well supply system, Well # 3– Rollins Street and Well #4 – Marmora Street. Both wells are considered to be groundwater under the direct influence of surface water (GUDI).

Well #3 treatment system consists of a dual train cartridge filtration system and an ultraviolet light system for primary treatment and sodium hypochlorite as the secondary disinfectant. Well #3 is equipped with on-line alarmed continuous analyzers for treated water free chlorine residual and turbidity.

The Well #4 treatment system consists of a dual train cartridge filtration system and an ultraviolet light system along with an arsenic removal system. The primary disinfection process consists of the cartridge filtration system and ultraviolet system while sodium hypochlorite is the secondary disinfectant. Well #4 is equipped with on-line alarmed continuous analyzers for treated water free chlorine residual and turbidity.

Distribution free chlorine residual is continuously monitored with an on-line alarmed chlorine analyzer. Both facilities contain a well pump lock out system in the case disinfection failure.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Jutzi & Brenntag

Summary of Non-Compliance

Non-Compliance Identified in a Ministry Inspection:

Ministry of Environment Inspection Rating: 100.00%

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
N/A				

Adverse Water Quality Incidents

Date	AWQI #	Cause			Corrective Action Taken
		Parameter	Result	Exceedance of	
Sept 19th, 2024	166386	Operational Well riser pipe repair.	Precautionary Boil Water Advisory Issued. Well / Treatment Facility put into service before lab results received.	NA	Sampled and test post repair. Lab results received back showing Treated Water TC= 0, EC = 0

Non-Compliance

Legislation	requirement(s) system failed to meet	duration of the failure	Corrective Action	Status
N/A				

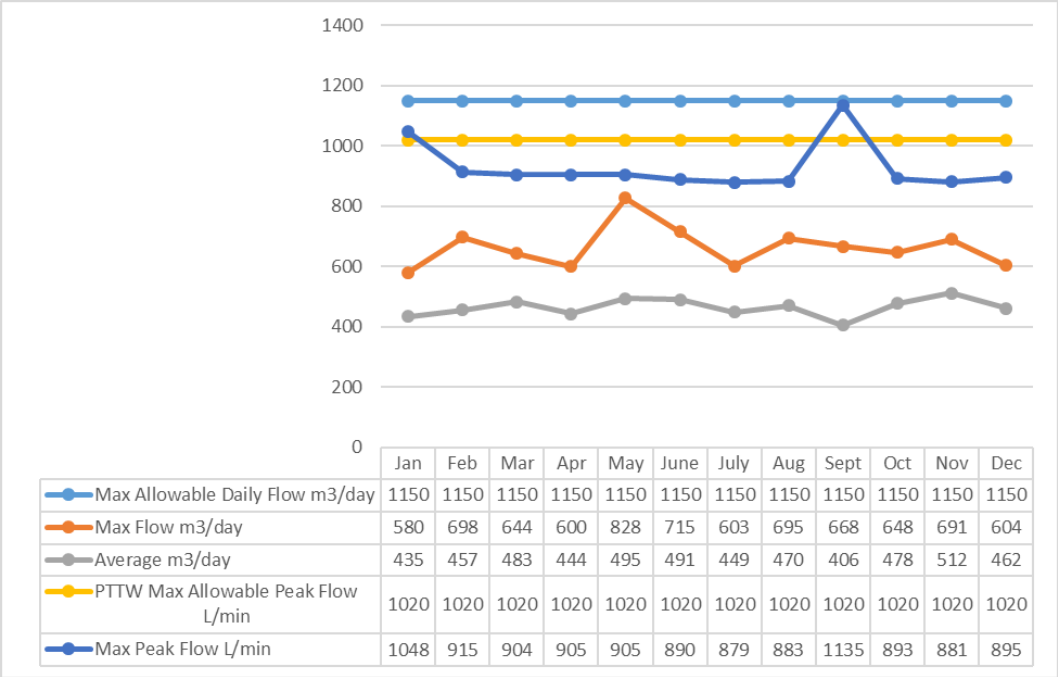
Flows

The Madoc Drinking Water System has a rated capacity for Rollins Street Pump house - 1,469m^3/day and Marmora Street Pump house – 1,470m^3/day. Additional flow data can be found under the Water Taking and Transfer Data.

Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water.

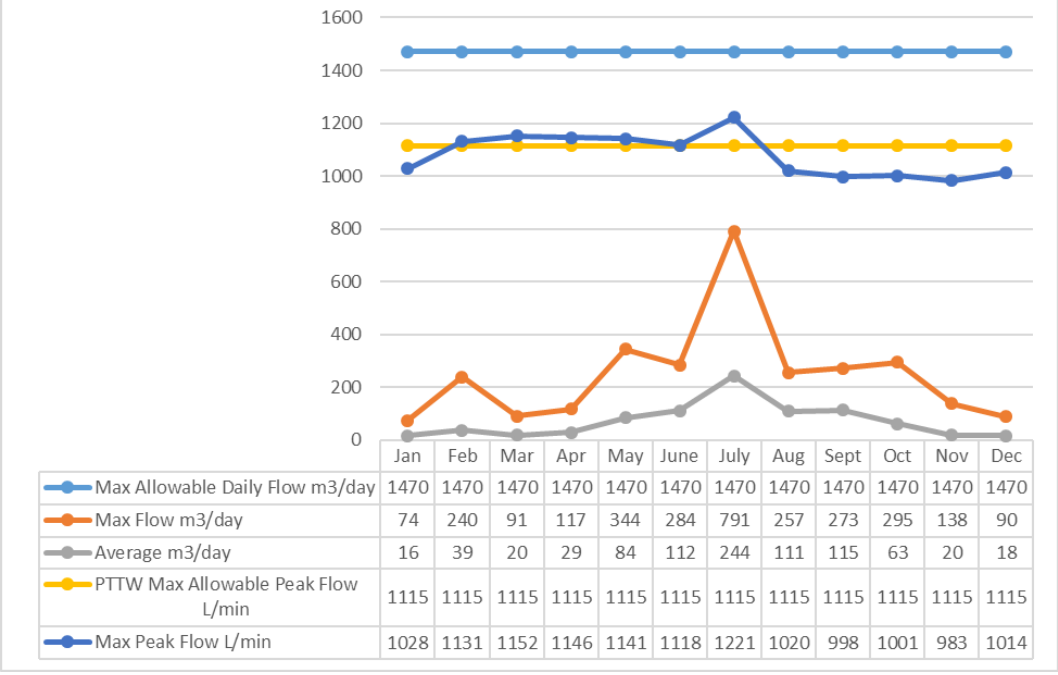
Raw Water Volume Taken: RW3



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Max Allowable Daily Flow m3/day	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
Max Flow m3/day	580	698	644	600	828	715	603	695	668	648	691	604
Average m3/day	435	457	483	444	495	491	449	470	406	478	512	462
PTTW Max Allowable Peak Flow L/min	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020
Max Peak Flow L/min	1048	915	904	905	905	890	879	883	1135	893	881	895

The above table shows there were spikes in instantaneous peak flow rate (L/min) and max flow rate these occurrences were caused during pump start-up/pump to waste.

Raw Water Daily Rate of Taking: RW4

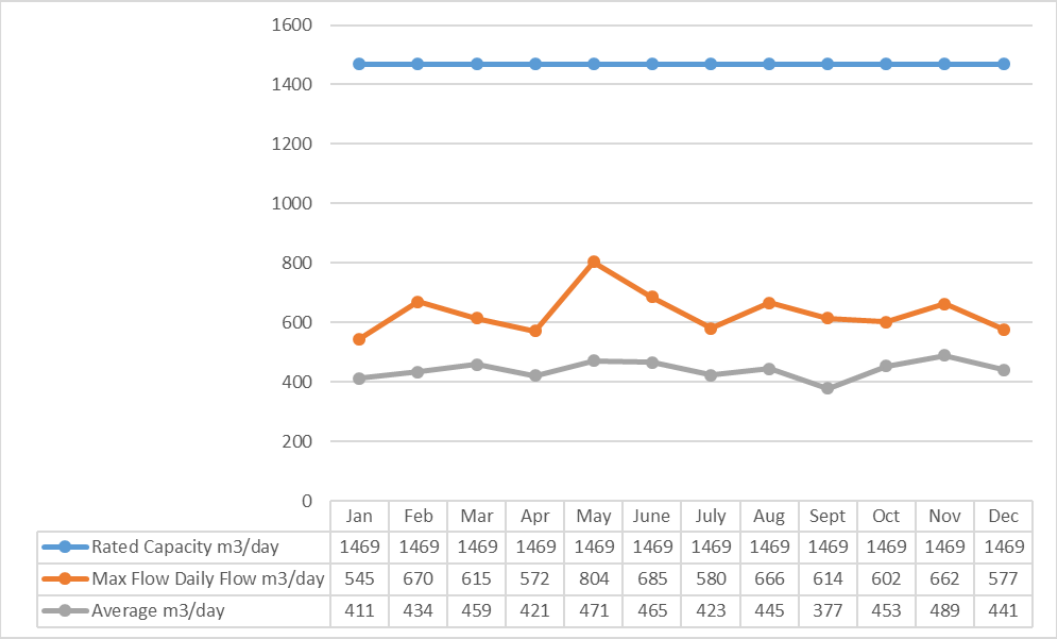


	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Max Allowable Daily Flow m3/day	1470	1470	1470	1470	1470	1470	1470	1470	1470	1470	1470	1470
Max Flow m3/day	74	240	91	117	344	284	791	257	273	295	138	90
Average m3/day	16	39	20	29	84	112	244	111	115	63	20	18
PTTW Max Allowable Peak Flow L/min	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115
Max Peak Flow L/min	1028	1131	1152	1146	1141	1118	1221	1020	998	1001	983	1014

The above table shows there were spikes in instantaneous peak flow rate (L/min) and max flow rate these occurrences were caused during pump start-up/pump to waste. The increased flow rate seen in July was due to maintenance.

Treated Water Flows - TW3

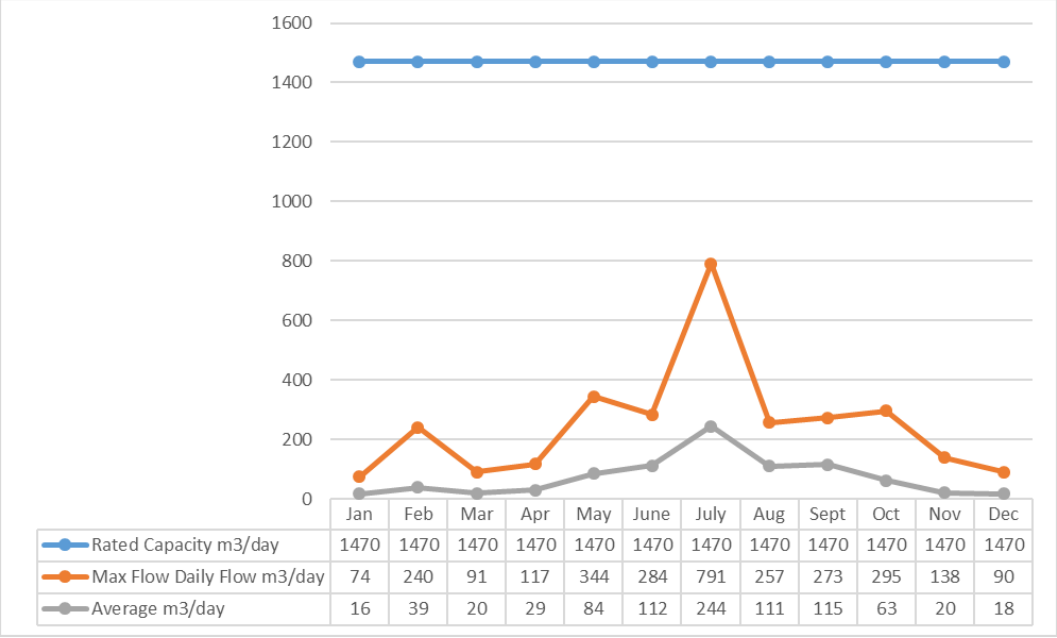
The Treated Water flows are regulated under the Municipal Drinking Water License.



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Rated Capacity m3/day	1469	1469	1469	1469	1469	1469	1469	1469	1469	1469	1469	1469
Max Flow Daily Flow m3/day	545	670	615	572	804	685	580	666	614	602	662	577
Average m3/day	411	434	459	421	471	465	423	445	377	453	489	441

Treated Water Flows – TW4

The Treated Water flows are regulated under the Municipal Drinking Water License.



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Rated Capacity m3/day	1470	1470	1470	1470	1470	1470	1470	1470	1470	1470	1470	1470
Max Flow Daily Flow m3/day	74	240	91	117	344	284	791	257	273	295	138	90
Average m3/day	16	39	20	29	84	112	244	111	115	63	20	18

Regulatory Sample Results Summary

- RW3 = Raw Water Well 3
- TW3 = Treated Water Well 3
- RW4 = Raw Water Well 4
- TW4 = Treated Water Well 4
- DW = Distribution Water

Microbiological Testing

Location	Number of Samples	E. Coli Results (min) - (max)	Total Coliform Results (min) – (max)	Number of HPC Samples	HPC Results (min) - (max)
Raw – RW3	54	0 – 6	0 – 50	~	~
Raw – RW4	54	0 – 6	0 – 36	~	~
Treated - TW3	54	0 - 0	0 – 0	54	0 –2
Treated- TW4	54	0 - 0	0 - 0	54	0 – 24
Distribution - DW	158	0 - 0	0 - 0	158	0 – 21

Operational Testing

On-Line

Parameter	Range of Results (min # - max #)
Turbidity, Well #3 Filter Effluent Train # 1 (NTU)	0.00 – 1.70 NTU*
Turbidity, Well #3 Filter Effluent Train # 2 (NTU)	0.00 – 2.00 NTU*
Chlorine, Well #3 Treated	0.00 – 5.00 mg/L*
Total Chlorine, Distribution	1.72 – 3.41 mg/L*
Free Chlorine, Distribution	0.00 – 5.00 mg/L*
Turbidity, Well #4 Filter Effluent Train # 1 (NTU)	0.00 – 5.00 NTU*
Turbidity, Well #4 Filter Effluent Train # 2 (NTU)	0.00 – 5.00 NTU*
Chlorine, Well #4 Treated	0.00 – 5.00 mg/L*

***** Instrument spikes and dips recorded by on-line instrumentation were a result of air bubbles and various maintenance and calibration activities. Power interruptions may also cause an instrument reading to drop to zero. All events are reviewed for compliance with O. Reg. 170/03 and if warranted, are reported to the Ministry of Environment as Adverse Water Quality Incidents.

In-House

Parameter	# of grab samples taken	Range of Results (min # - max #)
Raw Water Turbidity grabs - Well 3	12	0.13 – 0.40 NTU
Raw Water UVT grabs – Well 3	12	90.00 – 95.2 %
Raw Water Turbidity grabs - Well 4	12	0.10 – 0.33 NTU
Raw Water UVT grabs – Well 4	12	93.30 – 95.1 %
Well #3 Treated Water Free Chlorine	54	1.86 – 3.0 mg/L
Well #4 Treated Water Free Chlorine	56	1.44 – 2.90 mg/L
Distribution Free Chlorine	163	0.93 – 2.70 mg/L

Additional Legislated Samples

Date of Legal Instrument issued	Parameter	Sample Location	# of grab samples taken	Range of Results (min # - max #)
MDWL : 153-101 Drinking Water Health Related Parameters	Antimony (ug/L)	RW 3	1	1.0
		RW 4	4	0.6-0.8
		TW 3	1	1.0
		TW 4	5	0.60-0.60
	Arsenic (ug/L)	RW 4	12	6.9-9.1
		TW 4	12	0.2-0.2
Additional Samples	Fluoride	TW	Fluoride is not used at this facility	

Lead Sampling

The Lead Sampling Program is required under O.Reg 170/03. This system qualified for the plumbing exemption. This facility is on a reduced sampling schedule and lead is sampled every 36 months, the last samples were taken in 2021.

Location	Date	Lead (ug/L)	pH	Alkalinity (mg/L) as CACO3
	Limits/Ranges	***10.0***	***6.5-8.5***	***30-500***
Hydrant #82	25-March-24	0.09	7.49	302
Hydrant #99	25-March-24	0.48	7.47	319
Hydrant #82	16-Sept-24	0.12	7.61	315
Hydrant #99	16-Sept-24	0.04	7.59	324

Inorganic Parameters

- MAC = Maximum Allowable Concentration as per O.Reg 169/03
- MDL = Method Detection Limit
- Fluoride and Sodium are only required to be tested every 60 months.

Parameter	Sample Date	Result Value	MAC	Exceedance	
				MAC	½ MAC
Antimony: Sb (ug/L) - TW3	11-Mar-24	1	6	No	No
Antimony: Sb (ug/L) - TW4	15-Jan-24	< MDL 0.6	6	No	No
Antimony: Sb (ug/L) - TW4	11-Mar-24	< MDL 0.6	6	No	No
Antimony: Sb (ug/L) - TW4	8-Apr-24	< MDL 0.6	6	No	No
Antimony: Sb (ug/L) - TW4	2-Jul-24	< MDL 0.6	6	No	No
Antimony: Sb (ug/L) - TW4	15-Oct-24	< MDL 0.6	6	No	No
Arsenic: As (ug/L) - TW3	11-Mar-24	2.5	10	No	No
Arsenic: As (ug/L) - TW4	2-Jan-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	5-Feb-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	11-Mar-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	2-Apr-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	13-May-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	10-Jun-24	0.2	10	No	No
Arsenic: As (ug/L) - TW4	2-Jul-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	12-Aug-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	3-Sep-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	7-Oct-24	< MDL 0.2	10	No	No
Arsenic: As (ug/L) - TW4	12-Nov-24	0.2	10	No	No
Arsenic: As (ug/L) - TW4	9-Dec-24	0.2	10	No	No
Barium: Ba (ug/L) - TW3	11-Mar-24	174	1000	No	No
Barium: Ba (ug/L) - TW4	11-Mar-24	141	1000	No	No
Boron: B (ug/L) - TW3	11-Mar-24	22	5000	No	No
Boron: B (ug/L) - TW4	11-Mar-24	14	5000	No	No
Cadmium: Cd (ug/L) - TW3	11-Mar-24	0.161	5	No	No
Cadmium: Cd (ug/L) - TW4	11-Mar-24	0.007	5	No	No
Chromium: Cr (ug/L) - TW3	11-Mar-24	0.27	50	No	No
Chromium: Cr (ug/L) - TW4	11-Mar-24	0.16	50	No	No
Mercury: Hg (ug/L) - TW3	11-Mar-24	< MDL 0.01	1	No	No
Mercury: Hg (ug/L) - TW4	11-Mar-24	< MDL 0.01	1	No	No
Selenium: Se (ug/L) - TW3	11-Mar-24	0.65	50	No	No
Selenium: Se (ug/L) - TW4	11-Mar-24	0.38	50	No	No
Uranium: U (ug/L) - TW3	11-Mar-24	1.12	20	No	No
Uranium: U (ug/L) - TW4	11-Mar-24	0.454	20	No	No
Additional Inorganics					
Fluoride (mg/L) - TW3	10-Jul-23	0.38	1.5	No	No

Nitrate : (mg/L) - TW3	15-Jan-24	2.46	10	No	No
Nitrate : (mg/L) - TW3	8-Apr-24	1.78	10	No	No
Nitrate : (mg/L) - TW3	2-Jul-24	2.27	10	No	No
Nitrate : (mg/L) - TW3	15-Oct-24	1.41	10	No	No
Nitrate : (mg/L) - TW4	15-Jan-24	2.22	10	No	No
Nitrate : (mg/L) - TW4	8-Apr-24	0.358	10	No	No
Nitrate : (mg/L) - TW4	2-Jul-24	3.27	10	No	No
Nitrate : (mg/L) - TW4	15-Oct-24	2.39	10	No	No
Nitrite : (mg/L) - TW3	15-Jan-24	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW3	8-Apr-24	0.006	1	No	No
Nitrite : (mg/L) - TW3	2-Jul-24	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW3	15-Oct-24	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW4	15-Jan-24	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW4	8-Apr-24	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW4	2-Jul-24	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW4	15-Oct-24	< MDL 0.003	1	No	No
60 Month Sampling					
Sodium(mg/L)-TW3	10-July-2023	53.1	20.0	Yes	Yes
Fluoride(mg/L)-TW3	10-July-2023	0.38	1.50	No	No
Sodium(mg/L)-TW4	10-July-2023	44.0	20.0	Yes	Yes
Fluoride(mg/L)-TW4	10-July-2023	0.53	1.50	No	No

**There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.*

Organic Parameters

- MAC = Maximum Allowable Concentration as per O.Reg 169/03
- MDL = Method Detection Limit

Parameter	Sample Date	Result Value	MAC	Exceedance	
				MAC	½ MAC
1,1-Dichloroethylene (ug/L)-TW4	11-Mar-24	< MDL 0.33	14	No	No
1,2-Dichlorobenzene (ug/L)-TW4	11-Mar-24	< MDL 0.41	200	No	No
1,2-Dichloroethane (ug/L)-TW4	11-Mar-24	< MDL 0.35	5	No	No

1,4-Dichlorobenzene (ug/L)-TW4	11-Mar-24	< MDL 0.36	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW4	11-Mar-24	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW4	11-Mar-24	< MDL 0.25	5	No	No
2,4-Dichlorophenol (ug/L)-TW4	11-Mar-24	< MDL 0.15	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW4	11-Mar-24	< MDL 0.19	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)-TW4	11-Mar-24	< MDL 0.12	100	No	No
Alachlor (ug/L) -TW4	11-Mar-24	< MDL 0.02	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW4	11-Mar-24	< MDL 0.01	5	No	No
Azinphos-methyl (ug/L)-TW4	11-Mar-24	< MDL 0.05	20	No	No
Benzene (ug/L)-TW4	11-Mar-24	< MDL 0.32	1	No	No
Benzo(a)pyrene (ug/L)-TW4	11-Mar-24	< MDL 0.004	0.01	No	No
Bromoxynil (ug/L)-TW4	11-Mar-24	< MDL 0.33	5	No	No
Carbaryl (ug/L)-TW4	11-Mar-24	< MDL 0.05	90	No	No
Carbofuran (ug/L) -TW4	11-Mar-24	< MDL 0.01	90	No	No
Carbon Tetrachloride (ug/L) -TW4	11-Mar-24	< MDL 0.17	2	No	No
Chlorpyrifos (ug/L) -TW4	11-Mar-24	< MDL 0.02	90	No	No
Diazinon (ug/L)-TW4	11-Mar-24	< MDL 0.02	20	No	No
Dicamba (ug/L)-TW4	11-Mar-24	< MDL 0.2	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW4	11-Mar-24	< MDL 0.35	50	No	No
Diclofop-methyl (ug/L)-TW4	11-Mar-24	< MDL 0.4	9	No	No
Dimethoate (ug/L)-TW4	11-Mar-24	< MDL 0.06	20	No	No
Diquat (ug/L)-TW4	11-Mar-24	< MDL 1	70	No	No
Diuron (ug/L)-TW4	11-Mar-24	< MDL 0.03	150	No	No
Glyphosate (ug/L)-TW4	11-Mar-24	< MDL 1	280	No	No

Malathion (ug/L)-TW4	11-Mar-24	< MDL 0.02	190	No	No
Metolachlor (ug/L)-TW4	11-Mar-24	< MDL 0.01	50	No	No
Metribuzin (ug/L)-TW4	11-Mar-24	< MDL 0.02	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW4	11-Mar-24	< MDL 0.3	80	No	No
Paraquat (ug/L)-TW4	11-Mar-24	< MDL 1	10	No	No
PCB (ug/L)-TW4	11-Mar-24	< MDL 0.04	3	No	No
Pentachlorophenol (ug/L)-TW4	11-Mar-24	< MDL 0.15	60	No	No
Phorate (ug/L)-TW4	11-Mar-24	< MDL 0.01	2	No	No
Picloram (ug/L)-TW4	11-Mar-24	< MDL 1	190	No	No
Prometryne (ug/L)-TW4	11-Mar-24	< MDL 0.03	1	No	No
Simazine (ug/L)-TW4	11-Mar-24	< MDL 0.01	10	No	No
Terbufos (ug/L)-TW4	11-Mar-24	< MDL 0.01	1	No	No
Tetrachloroethylene (ug/L)-TW4	11-Mar-24	< MDL 0.35	10	No	No
Triallate (ug/L) -TW4	11-Mar-24	< MDL 0.01	230	No	No
Trichloroethylene (ug/L)-TW4	11-Mar-24	< MDL 0.44	5	No	No
Trifluralin (ug/L)-TW4	11-Mar-24	< MDL 0.02	45	No	No
Vinyl Chloride (ug/L)-TW4	11-Mar-24	< MDL 0.17	1	No	No
1,1-Dichloroethylene (ug/L)-TW3	11-Mar-24	< MDL 0.33	14	No	No
1,2-Dichlorobenzene (ug/L)-TW3	11-Mar-24	< MDL 0.41	200	No	No
1,2-Dichloroethane (ug/L)-TW3	11-Mar-24	< MDL 0.35	5	No	No
1,4-Dichlorobenzene (ug/L)-TW3	11-Mar-24	< MDL 0.36	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW3	11-Mar-24	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW3	11-Mar-24	< MDL 0.25	5	No	No
2,4-Dichlorophenol (ug/L)-TW3	11-Mar-24	< MDL 0.15	900	No	No

2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW3	11-Mar-24	< MDL 0.19	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)-TW3	11-Mar-24	< MDL 0.12	100	No	No
Alachlor (ug/L) -TW3	11-Mar-24	< MDL 0.02	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW3	11-Mar-24	< MDL 0.01	5	No	No
Azinphos-methyl (ug/L)-TW3	11-Mar-24	< MDL 0.05	20	No	No
Benzene (ug/L)-TW3	11-Mar-24	< MDL 0.32	1	No	No
Benzo(a)pyrene (ug/L)-TW3	11-Mar-24	< MDL 0.004	0.01	No	No
Bromoxynil (ug/L)-TW3	11-Mar-24	< MDL 0.33	5	No	No
Carbaryl (ug/L)-TW3	11-Mar-24	< MDL 0.05	90	No	No
Carbofuran (ug/L) -TW3	11-Mar-24	< MDL 0.01	90	No	No
Carbon Tetrachloride (ug/L) -TW3	11-Mar-24	< MDL 0.17	2	No	No
Chlorpyrifos (ug/L) -TW3	11-Mar-24	< MDL 0.02	90	No	No
Diazinon (ug/L)-TW3	11-Mar-24	< MDL 0.02	20	No	No
Dicamba (ug/L)-TW3	11-Mar-24	< MDL 0.2	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW3	11-Mar-24	< MDL 0.35	50	No	No
Diclofop-methyl (ug/L)-TW3	11-Mar-24	< MDL 0.4	9	No	No
Dimethoate (ug/L)-TW3	11-Mar-24	< MDL 0.06	20	No	No
Diquat (ug/L)-TW3	11-Mar-24	< MDL 1	70	No	No
Diuron (ug/L)-TW3	11-Mar-24	< MDL 0.03	150	No	No
Glyphosate (ug/L)-TW3	11-Mar-24	< MDL 1	280	No	No
Malathion (ug/L)-TW3	11-Mar-24	< MDL 0.02	190	No	No
Metolachlor (ug/L)-TW3	11-Mar-24	< MDL 0.01	50	No	No
Metribuzin (ug/L)-TW3	11-Mar-24	< MDL 0.02	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW3	11-Mar-24	< MDL 0.3	80	No	No

Paraquat (ug/L)-TW3	11-Mar-24	< MDL 1	10	No	No
PCB (ug/L)-TW3	11-Mar-24	< MDL 0.04	3	No	No
Pentachlorophenol (ug/L)-TW3	11-Mar-24	< MDL 0.15	60	No	No
Phorate (ug/L)-TW3	11-Mar-24	< MDL 0.01	2	No	No
Picloram (ug/L)-TW3	11-Mar-24	< MDL 1	190	No	No
Prometryne (ug/L)-TW3	11-Mar-24	< MDL 0.03	1	No	No
Simazine (ug/L)-TW3	11-Mar-24	< MDL 0.01	10	No	No
Terbufos (ug/L)-TW3	11-Mar-24	< MDL 0.01	1	No	No
Tetrachloroethylene (ug/L)-TW3	11-Mar-24	< MDL 0.35	10	No	No
Triallate (ug/L) -TW3	11-Mar-24	< MDL 0.01	230	No	No
Trichloroethylene (ug/L)-TW3	11-Mar-24	< MDL 0.44	5	No	No
Trifluralin (ug/L)-TW3	11-Mar-24	< MDL 0.02	45	No	No
Vinyl Chloride (ug/L)-TW3	11-Mar-24	< MDL 0.17	1	No	No
DISTRIBUTION WATER					
Trihalomethane: Total (ug/L) Annual Average - DW	2024	23.25	100.0	No	No
HAA Total (ug/L) Annual Average - DW	2024	6.0	80.0	No	No

Maintenance Summary

OCWA uses a risk-based preventative maintenance framework that ensures assets are maintained to manufacturer's and/or industry standards. Maintenance is completed using various tools and operational supports.

OCWA uses a Work Tracking Database (Maximo). Maximo is a maintenance tracking system that can generate work orders as well as give summaries of completed and scheduled work. During the year, the operating authority at the facility generates scheduled work orders on a weekly, monthly and annual basis. The service work is recorded in the work order history. This ensures routine and preventive maintenance is carried out. Emergency and capital repair maintenance is completed and added to the system.

Capital projects are listed and provided to the Corporation of the Municipality of Centre Hastings in the form of a "Capital Forecast". This list is developed by facility staff and provides recommendations for facility components requiring upgrading or improvement.

Preventative/Weekly Maintenance Work Orders Completed	384
Operational Maintenance Work Orders Completed	13
Capital Maintenance Work Orders Completed	16

Maintenance Highlights: major expenses incurred to install, repair or replace required equipment

Spare Tank Lid
Replace Riser Well 3 Riser Pipe and Couplings
Stand by Generator for Water Tower
Pressure Transmitter – Water Tower
Well #4 Assessment

QEMS

A Surveillance 2, S2, audit was conducted by Intertek SAI Global on July 19th, 2024. The Corporation of the Municipality of Centre Hastings Quality Management System conforms to the Standard.

Water Taking and Transfer Data

Data for the reporting period of January 1, 2024 to December 31, 2024 was submitted electronically to the Ministry of the Environment and Climate Change on February 4th, 2024 under Permit to Take Water #2660-B5FQPP.