

RM of Montcalm
Public Water System
Annual Report – 2022

The RM of Montcalm Public Water System, 2022 Annual Report was placed on the RM website (www.rmofmontcalm.com) on June 26, 2023

Free paper copies of the report are available at the RM of Montcalm administration building located at 46 – 1st Street East, Letellier, MB.

The public will be notified via the town newsletter (published quarterly), on the RM website, as well as a poster on the bulletin board in the Town office.

RM of Montcalm Public Water System

Annual Report, 2022

License Numbers: PWS-08-243-02, PWS-08-244-02

Water System Codes: 114.00, 142.75

Name of the Public Water Systems:

RM of Montcalm (RRR) – PWS

RM of Montcalm (Morris) – PWS

Name of Legal Owner – Rural Municipality of Montcalm

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Report Prepared: June 26, 2023

The 2022 Annual Report for the RM of Montcalm PWS summarizes the Water Utility's ability to distribute safe, potable water and meet provincial regulations.

1. Description of the Water System

The RM of Montcalm PWS provides potable water to a population of approximately 780 residents. Treated water is supplied by the Pembina Valley Water Coop and meets all objectives as stated in the Guidelines for Canadian Drinking Water Quality.

1.1 Water Supply Source

The RM of Montcalm Water System receives treated water from the Pembina Valley Water Coop (PVWC). For more information on the water treatment process, go to: www.pvwc.ca

1.2 Storage Reservoirs

1.2.1 St Joseph WTP

Reservoir Capacity: 79 600 L

1.2.2 St Jean Baptiste WTP

Reservoir Capacity: 348 342 L

1.3 Distribution System

1.3.1 St Joseph WTP

Treated water from the reservoir is pumped throughout the RM of Montcalm distribution system via 2 pumps: a 1 horsepower duty pump and a 5-horsepower duty pump.

1.3.2 St Jean Baptiste WTP

Treated water from the reservoir is pumped throughout the RM of Montcalm distribution system via two 5 horsepower duty pumps and a 40 HP emergency pump

1.3.3 Other

Locations within the RM of Montcalm but outside of St Joseph and St Jean Baptiste that have water service, receive their supply directly from the PVWC distribution system

1.4 Number of Connections, population serviced and types of users

The RM of Montcalm distribution system is comprised of 500 service connections of which 460 are domestic and 40 are commercial. All connections are metered

1.5 Classification and Certification

Operators are certified under Manitoba Conservation's Water and Wastewater Facility Operators Regulation under the Environmental Act

Pierre Sarasin WD4, Pending WT1, WWC1, WWT1

Legend

WT-Water Treatment

WD-Water Distribution

WWT-Waste Water Treatment

WWC-Waste Water Collection

CC-Conditional Certificate

2. Disinfection system in use

The last step before distribution is the addition of 12% sodium hypochlorite to the water while entering the reservoirs. The dosage is flow-paced to maintain a minimum of 0.5 mg/L free chlorine before entering the distribution system. There is a minimum of 0.1 mg/L of free chlorine at all times in the distribution system.

2.1 Equipment and Monitoring requirements

As required, the RM of Montcalm PWS ensures continuous disinfection is maintained by stocking all spare parts for chlorinators and a complete spare chlorinator is kept at the reservoirs. Free Available and Total Chlorine residuals are monitored **daily** at the reservoirs and bi-weekly throughout the distribution system. A Hach portable test kit is used for the testing. All results are recorded on the appropriate monitoring forms. Bi-Weekly samples are sent to ALS Labs for testing. Monthly chlorination reports are sent to the Drinking Water Officer at the end of each month.

Tests performed by-Weekly:

Total coliform: a measurement of the total coliform present in bi-weekly samples submitted to ALS Labs

Escherichia coli: a measurement of Escherichia coli present in bi-weekly samples submitted to ALS Labs

Every second year, quarterly samples are also collected in the distribution system and submitted to the lab for **THM and HAA** testing

THM: is the abbreviation for Trihalomethane, which is a chlorinated disinfection byproduct.

HAA: is the abbreviation for Haloacetic Acids which is a chlorinated disinfection byproduct.

2.2 Overall performance

For 2022, the RM of Montcalm met all daily sampling requirements. The following tables outline the requirements and performance of the PWS in the RM of Montcalm for 2022 as outlined in the Operating License:

Disinfection Monitoring and Reporting

	Regulatory Requirement	PWS Performance
A) Free Chlorine residual entering the distribution system Section 21(1)a-MR40/2007	$\geq 0.5\text{mg/L}$	100%
B) Frequency of Testing entering the distribution system Section A-MR40/2007	Daily	100%
C) Free Chlorine residual in the distribution system Section 22a-MR40/2007	$\geq 0.1\text{mg/L}$	100%
D) Frequency of Testing in the distribution system Section A-MR40/2007	Bi-Weekly	100%
E) Report Submissions Section 25(2)-MR40/2007	Monthly	100%

Bacteriological Monitoring and Reporting

	Regulatory Requirement	PWS Performance
A) Number of raw/incoming water samples Schedule A-MR40/27	26x7	100%
B) Number of treated water samples Schedule A-MR40/2007	26x7	100%
C) Number of distribution water samples Schedule A-MR-40/27	26x7	100%
D) Frequency of Testing Schedule A-MR40/27	Bi-Weekly	100%
E) Total Coliform present in samples Section 3(1)b-MR40/2007	0 TC per 100ml	100%
F) E. Coli present in samples Section 3(1)a-MR40/2007	0 EC per 100ml	100%

The PWS has met all regulatory requirements for 2022. The water system was deemed to be in compliance with all terms and conditions in the operating license.

Disinfection Bi Products Monitoring and Reporting – THM and HAA

As specified by the operating license, the RM of Montcalm PWS is required to sample for Trihalomethanes (THM) and Haloacetic Acids (HAA) on a quarterly basis every 2 years. The RM of Montcalm was required to sample for Disinfection Bi Products for 2022

2022 THM/HAA Quarterly Reporting

Water System Name	Code	Feb THM	May THM	Aug THM	Nov THM	AVG THM
Montcalm RM (RRR) Dist (Letellier) - PWS	114.00	0.149	0.0803	0.108	0.0858	0.105
Montcalm RM (Morris Reg) - PWS	142.75	0.169	0.0651	0.120	0.0942	0.112
		Feb HAA	May HAA	Aug HAA	Nov HAA	AVG HAA
Montcalm RM (RRR) Dist (Letellier) - PWS	114.00	65.6	44.7	84.9	88.0	70.8
Montcalm RM (Morris Reg) - PWS	142.75	66.2	51.9	58.6	59.4	59.02

The drinking water quality standards regulation (DWQSR) MR 41(2007) Schedule B – Chemical standards for PWS, which stated maximum THM 0.1 mg/L and HAA 80 ug/L.

3. Water System Incidents

In 2022, there were no major incidents.

4. Drinking water orders

In 2022 there were no Safety Orders issued for the RM of Montcalm public water system

5. Boil Water Advisories issued, and actions taken

In 2022, RM of Montcalm PWS was issued the following Boil Water Advisories.

-May 13,2022 town of St-Joseph was placed on boil water advisory for power outage at the plant.

Bacterial samples were taken, and pass May 20,2022 boil water advisory was rescinded.

-July 14,2022 town of St-Joseph was place on boil water advisory for repairing incoming line to reservoir.

Bacterial samples were taken, and pass July 18,2022 boil water advisory was rescinded.

-July26,2022 rural north of St-Joseph was put on boil water advisory for repairing service leak.

Bacterial samples were taken, and pass, July 29,2022 boil water advisory was rescinded.

-Aug 8,2022 town of St-Jeanbaptiste and north of town was place on boil water advisory for repairing two leaks in town.

-Bacterial samples were taken, and pass, Aug 17,2022 boil water advisory was rescinded.

6. System Upgrades & Improvements

Not at this

7. Future Upgrades and Improvements

Continue GPS mapping across the entire water system.

Eliminate water main dead ends in the rural system wherever possible.

8. Training

Certified water operator has been and will continue to attend CEU (continuing education units) qualified training, in accordance with the water license requirements.

Report Prepared by: Pierre Sarasin