

RM of Montcalm
Public Water System
Annual Report – 2021

The RM of Montcalm Public Water System, 2021 Annual Report was placed on the RM website (www.rmofmontcalm.com) on March 11, 2022

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, 2021

Licence 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: Jan 15, 2022

The 2021 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

Matthew Klapka WD2, WT2, 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 2021, 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 2021 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	>=0.5mg/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	>=0.1mg/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 2021. 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 not required to sample for Disinfection Bi Products for 2021

2021 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					
Montcalm RM (Morris Reg) - PWS	142.75					
		Feb HAA	May HAA	Aug HAA	Nov HAA	AVG HAA
Montcalm RM (RRR) Dist (Letellier) - PWS	114.00					
Montcalm RM (Morris Reg) - PWS	142.75					

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 0.08 mg/L

3. Water System Incidents

In 2021 there were no major incidents

4. Drinking water orders

In 2021 there were no Safety Orders issued for the RM of Montcalm public water system

5. Boil Water Advisories issued and actions taken

In 2021, RM of Montcalm PWS was issued the following Boil Water Advisories.

- On October 12, the Letellier water system was placed under a Precautionary Boil Water Advisory for a new incoming water meter and pressure reducing valve installation. Samples were taken on October 12 at 3 locations within Letellier which met all conditions and the BWA was rescinded on October 15.
- On December 23, the Morris Water Treatment Plant experienced a major watermain leak supplying water east of the Red River. Initial changes to the system in order to supply water from Letellier Water Treatment Plant through Dominion City caused a complete depressurization of the distribution lines. Two sets of 3 samples were taken by PVWC on December 29 and 30 which met all conditions and the BWA was rescinded on December 31

6. System Upgrades & Improvements

2 Watermain extensions within the rural distribution system installed.

New water meter installed for Letellier incoming supply

7. Future Upgrades and Improvements

Continue GPS mapping across the entire water system

New Reservoir in Letellier

Eliminate watermain 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: Matthew Klapka