

**RM of Montcalm**  
**Public Water System**  
**Annual Report – 2020**

The RM of Montcalm Public Water System, 2020 Annual Report was placed on the RM website ([www.rmofmontcalm.com](http://www.rmofmontcalm.com)) on January 15, 2021

Free paper copies of the report are available at the RM of Montcalm administration building located at 46 – 1<sup>st</sup> 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, 2020

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 6, 2021

# **The 2020 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](http://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 480 service connections of which 430 are domestic and 50 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

Chad Buhlin – Supervisor      WD1, WT1, WWC1, WWT1

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 2020, the RM of Montcalm met all daily sampling requirements. The following tables outline the requirements and performance of the PWC in the RM of Montcalm for 2020 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 2020. 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 following tables outline the requirements and performance of the RM of Montcalm PWS for 2020

### 2019 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	0.141	0.0995	0.121	0.0952	0.114
Montcalm RM (Morris Reg) - PWS	142.75	0.0659	0.0442	0.116	0.0799	0.0504
		Feb HAA	May HAA	Aug HAA	Nov HAA	AVG HAA
Montcalm RM (RRR) Dist (Letellier) - PWS	114.00	0.0711	0.0415	0.0786	0.0777	0.0672
Montcalm RM (Morris Reg) - PWS	142.75	0.0604	0.0298	0.0363	0.0393	0.0415

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 2020 there were no major incidents

### 4. Drinking water orders

In 2020 there were no Safety Orders issued for the RM of Montcalm public water system

### 5. Boil Water Advisories issued and actions taken

In 2020, RM of Montcalm PWS was issued the following Boil Water Advisories.

-On February 3, a significant leak was detected in St Jean. It was assumed that the 8" water main had failed and would require a full depressurization of the system. It was later found that a 1.5" nylon fitting connected to the curbstop had failed and was causing the leak. The nylon fittings were replaced with brass and water service was restored to the town. The BWA was lifted on Feb 7

-On April 11, it was discovered that Pembina Valley Water Coop had a leak in the 14" main between Morris and St Jean and needed to be shut down as it was leaking through the town ring dike. Water feed to St Jean was rerouted from Letellier and required a portion of pipeline to pass bacteria testing. The Rural customers west of the Red River between St Jean and Letellier were impacted. The BWA was lifted on April 14.

-On June 6, the Letellier Water Treatment Plant experienced a computer malfunction which resulted in a complete depressurization across their entire system. This impacted Letellier, south to Emerson and St Joseph. The BWA was lifted on June 8

-On August 27, a leak was discovered in Letellier. It was determined to be associated to a fire hydrant isolation valve. Once excavated, it was determined that a coupler had cracked and started leaking. The repair was completed and water service restored. The BWA was lifted on August 31.

-On November 3, Pembina Valley Water Coop installed a meter pit along Old 14S on the border between the Municipality of Emerson-Franklin and the RM of Montcalm. This only affected 4 properties within Montcalm. The BWA was lifted on November 6.

-On December 4, Pembina Valley Water Coop had a significant leak in their 8" water main along HWY 201 which impacted Montcalm customers along Old 14S. The repair was completed and water service restored. The BWA was lifted on December 7.

-On December 14, Pembina Valley Water Coop conducted required maintenance at the Letellier Water Treatment Plant in order to meet Chlorine Contact Time requirements as set out by their operating license. In that time, the RM repaired a water leak in Letellier at the corner of First St E and Third Ave E. The BWA was lifted on December 18.

## **6. System Upgrades & Improvements**

New Parastaltic Chlorine Metering pump In St Jean

New Generator Installed in St Jean

New 40hp Fire pump installed in St Jean

GPS mapping of curbstops and valves in St Jean

## **7. Future Upgrades and Improvements**

Continue GPS mapping across the entire water system

New Reservoir in Letellier

Create Asset Management Plan

## **8. Training**

Both certified water operators have been and will continue to attend CEU (continuing education units) qualified training, in accordance with the water license requirements.

Report Prepared by: Matthew Klapka