

**RM of Montcalm**  
**Public Water System**  
**Annual Report – 2019**

The RM of Montcalm Public Water System, 2019 Annual Report was placed on the RM website ([www.rmofmontcalm.com](http://www.rmofmontcalm.com)) on January 15, 2020

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, 2019

Licence Numbers: PWS-08-243-01, PWS-08-244-01

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 2, 2020

# **The 2019 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 reservoirs 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 reservoirs is pumped throughout the RM of Montcalm distribution system via two 5 horsepower duty pumps and a gas operated 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 2019, the RM of Montcalm did not meet all daily sampling requirements. The following tables outline the requirements and performance of the PWC in the RM of Montcalm for 2019 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	$\geq 0.5\text{mg/L}$	99.99%
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%

There were 4 occasions in St Joseph Free Chlorine residual entering the distribution system were slightly less than 0.5mg/L.

## **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 2019. 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. There were no requirements to sample in 2019

### 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					
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 2019 there were no major incidents

### 4. Drinking water orders

In 2019 there were no Safety Orders issued for the RM of Montcalm public water system

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

In 2019, RM of Montcalm PWS was issued 4 Boil Water Advisories.

On July 8, Pembina Valley Water Coop needed to shut down their Dominion City and Emerson water mains in order to interconnect the 2 due to the Marais River Bridge project on HWY 201. This required 12 properties, 3 east of Letellier and 9 along Old 14 South to be issued a Boil Water Advisory. The advisory was lifted on July 12.

On September 16, the RM of Montcalm conducted a planned water meter replacement along with 2 valve replacements in our Rural West area. The RM of Montcalm was required to depressurize the rural water mains to conduct the maintenance and issued a Boil Water Advisory for the 45 effected homes and businesses. The advisory was lifted on September 18.

On October 11, the town of St Jean experienced a 30 hour power outage which caused depressurization of the water system. The advisory was lifted on October 18.

On December 2, Taillieu Construction was drilling in a water line for Pembina Valley Water Coop under the north dike of St Jean. They drilled through the RM of Montcalm's 3" water main which feeds 4 properties north of town. A replacement line was drilled in and connected. The advisory was lifted on December 9.

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

New water main and meter pit installed along RD 8N from PVWC water main on Old 14 South

New Octave Ultrasonic water meter installed in a meter pit at the corner of HWY 75 and Rd 12N

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

Generator and standby pump for the St Jean WTP

GPS mapping of all curbstops, valves, flushouts and water mains

New Stenner Parastaltic metering/chlorine pump for St Jean WTP

## **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