

RM of Montcalm Public Water System Annual Report - 2016

The RM of Montcalm Public Water System, 2016 Annual Report was placed on the town website (www.rmofmontcalm.com) on April 15, 2017.

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

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

RM of Montcalm Public Water System Annual Report, 2016

**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 the Legal Owner: Rural Municipality of Montcalm

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Report Prepared: April 7, 2017

The 2016 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: pvwc.ca

1.2 Storage Reservoirs

1.2.1 St Joseph WTP

Reservoir Capacity: 79 600 L

1.2.2 St Jean Baptist 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 two pumps; a 1 horsepower duty pump and a 5 horsepower duty pump.

1.3.2 St Jean Baptist 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 served and types of users

The RM of Montcalm distribution system is comprised of 497 service connections of which 436 are domestic and 61 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 *Environment Act*

Chad Buhlin - Supervisor	WD1, WT1, WWC1, WWT1
Preston Molloy	WD1, 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 of free chlorine per litre before it enters the distribution system. There is a minimum of 0.1 mg of free chlorine per litre at all times in the distribution system.

2.1 Equipment and monitoring requirements

As required, the RM of Montcalm PWS insures 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 bi-weekly:

-**total coli form**: a measurement of the total coli form present in bi-weekly samples submitted to ALS labs.

-**Escherichia coli**: a measurement of the Escheria 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** testing..

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

2.2 Overall performance

For 2016, the RM of Montcalm PWS did not meet all daily and bi-weekly sampling requirements. The following tables outline the requirements and performance of the PWS in the RM of Montcalm for 2016 as outlined in the Operating License:

Disinfection Monitoring and Reporting

Regulatory Requirement	PWS Performance
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A)Free Chlorine residual entering the distribution system Section 21(1)a – MR 40/2007	≥ 0.5mg/L	100%
B)Frequency of testing entering the distribution system Section A – MR 40/2007	Daily	99%+ *
C)Free Chlorine residual in the distribution system Section 22a – MR 40/2007	≥ 0.1mg/L	100%
D)Frequency of testing in the distribution system Section A – MR 40/2007	Bi-Weekly	100%
E)Report Submissions Section 25(2) – MR 40/2007	Monthly	100%
<p>The PWS has met all regulatory requirements for 2016 in this area. * A blizzard and iced road conditions made it not possible to reach the St. Joe. WTP to complete 1 daily test in December. Long term chlorine residual results, both before and after the missed test, strongly indicated no concern for water quality. The incident was reported to management and the DWO.</p>		

Bacteriological Monitoring and Reporting

Regulatory Requirement	PWS Performance
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A)Number of raw/incoming water samples Schedule A – MR 40/27	26	100%
B)Number treated water samples Schedule A – MR 40/2007	26	100%
C)Number of distribution water samples Schedule A – MR 40/27	26	100%
D)Frequency of Testing Schedule A – MR 40/27	Bi-weekly	100%
E)Total Coli form present in samples Section 3(1)b – MR 40/2007	0 TC per 100ml	100%
F)E. Coli present in Samples Section3(1)a – MR 41/2007	0 EC per 100ml	100%
<p>The Public water System has met all regulatory requirements for 2016. The water system was deemed to be in compliance with all terms and conditions in the Operating License.</p>		

Disinfection By-products Monitoring and Reporting – THM's

As specified by the operating license, the RM of Montcalm PWS is required to sample for Trihalomethanes (THMs) on a quarterly basis every two years. The public water system has met its regulatory requirement for 2016 with regard to submitting quarterly water samples for THM analysis. The RM of Montcalm PWS received a compliance percentage of **100%** for **THM Testing**.

2016 THM's Quarterly Reporting

Water System Name	Code	Feb THM1	May THM2	Aug THM3	Nov THM4	AVG THM
Montcalm RM (RRR) - Dist (Letellier) - PWS	114.00	0.185	0.146	0.155	0.240	0.182
Montcalm RM (Morris Reg)	142.75	0.116	0.0794	0.0697	0.102	0.092

The Drinking Water Quality Standards Regulation (DWQSR) MR 41(2007) Schedule B – Chemical Standards for PWS, which states maximum THMs 0.1 mg/L.

The Compliance Plan has been submitted to the Office of Drinking Water, addressing the water quality standard for the amount of total trihalomethanes.

3. Water System incidents

In 2016 there were no major incidents.

4. Drinking water orders

In 2016 there were no Safety orders issued for RM of Montcalm Public Water System.

5. Boil Water Advisories issued and actions taken

In 2016 no boil water advisories were issued.

6. System Upgrades & Improvements

In 2016, 3 new hydrants were installed in Letellier.

In 2016 the RM of Montcalm replaced the St. Joe WTP outgoing water meter.

7. Future Upgrades & Improvements

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: Preston Molloy