

Public Water System Annual Report

Town of Melita
2022



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Date Prepared: 3/21/2023

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Introduction:

The 2022 Annual Report for the Town of Melita summarizes the water utility's ability to produce safe potable water and meet or exceed provincial regulations. We hope that the following report answers any and all questions regarding the water system. It is our belief that the public has a right to access information related to the drinking water they consume. To that end the following report has been prepared for the residents of the Town of Melita and Municipality of Two Borders users who have lines coming off Melita's distribution system.

1. Description of the Water System

The Melita Public Water System (PWS) provides safe potable drinking water to the residents of Melita through the distribution system and to rural residents who aren't on the Co-op pipeline by means of the Truck Fill System at the Water Treatment Plant (WTP) and those who are have lines coming off Melita's distribution system. Treated water produced from the WTP meets or exceeds all health and aesthetic objectives as stated in the *Guidelines for Canadian Drinking Water Quality*.

The Melita Water Treatment Plant



Truck Fill



1.1. Distribution System

Treated water from the reservoir, located underneath the WTP, is pumped throughout the Melita distribution system via two 7.5 horsepower duty pumps, with one 30 horsepower emergency standby pump for firefighting purposes. The Town of Melita has 3 different types of pipe in its distribution system; they consist of PVC, cast iron and ductile iron, which all combined run for a total of about 15km. The WTP also has a natural gas powered generator located in the building that powers the distribution pumps during times of a power failure.

The Distribution Pumps



The Generator

1.2. Water Treatment Process

For information on the water treatment process, raw water wells, chemicals used and water testing please refer to ***Southwest Regional Water Co-op's Annual Report.***

1.3. Number of Connections, Population Served and types of Water Users

The Melita distribution system is comprised of 592 service connections, with a population of 1041 (2021 Statistics Canada Census) approximately. The distribution system also services a few rural connections located directly around town in the Municipality of Two Borders.

1.4. Classification and Certification

- The Melita distribution system is classified as a Class 1 Water Distribution Facility.
- The certifications and classifications fall under Manitoba Conservation's Water and Wastewater Facility Operators Regulation under the Environment Act.
- Certification Level of Operators;
 - Anthony Emrick – Level 1
 - Debbie Vanbeselaere – Operator in Training

1.5. Bacterial Testing

The water is sampled in one location in the distribution (within the Town of Melita) is tested every two weeks (bi-weekly) for the presence of Total Coli forms (TC) and E. Coli (EC) bacteria. If these bacteria are present in the water it is an indication that disease causing organisms may also be present. These samples are then sent by mail to a provincially sanctioned lab in Winnipeg for testing. For 2022 all samples sent for testing passed.

2022 Results Total Coliform Bi-weekly Sampling		
Sample	Samples Submitted	Sample Results
Treated	26/26, 100% compliant	All samples tested passed

2022 Results E.Coli Bi-weekly Sampling		
Sample	Samples Submitted	Sample Results
Treated	26/26, 100% compliant	All samples tested passed

1.6. Disinfection

Disinfection is the selective destruction or inactivation of potential disease-causing organisms in water. Per the *Drinking Water Safety Act* the Melita PWS must ensure that a disinfection residual of at least:

- 0.5 mg/L of free chlorine per litre of water is detectable at the point where water enters the distribution system, after a minimum contact time of 20 minutes. This applies to the water at the Southwest Regional Co-op plant only but is mentioned here for information.
- 0.1 mg/L of free chlorine per litre of water is detectable at all times at any point in the distribution network. This is the standard that applies to the Melita PWS as the infrastructure is a distribution network only and the residual is required to be tested every two weeks during bacteria testing (reminder: the residual is tested daily at the plant of all outgoing water). However, to ensure best management of the utility the Town of Melita tests the free chlorine residual daily at the Melita Lodge. **For 2022 all routine bi-weekly samples tested met the 0.1mg/L standard.**

- For 2022 the chlorine residuals at the Lodge were on average 0.74 mg/L with the highest and lowest readings being 0.95 mg/L and 0.45 mg/L.
- Lodge Tests on average 6 tests per day, which include turbidity, free chlorine, total chlorine, iron, pH, manganese, conductivity and hardness.

1.7 Disinfection By-Products

The Town is also required to sample for Trihalomethanes/Haloacetic acids (THM/HAA) on a quarterly basis every other year.

- The standard for THMs: 0.1mg/L based on an average of the quarterly samples
- The standard for HAAs: 0.08mg/L based on an average of the quarterly samples

2022 Disinfection by-products testing					
Location	Parameter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Lodge	THM's	0.0055	0.0044	0.0067	0.0055
Town Office	HAA's	<1.8	<1.8	<1.8	<1.8
THM's	Less than or equal to 0.1 mg/L in the water distribution system				
HAA's	Less than or equal to 80 ug/L in the water distribution system				

2. Drinking Water Safety Orders and Actions Taken in Response

In 2022, no drinking water safety orders were issued for the Town of Melita PWS.

3. Boil Water Advisories Issued and Actions Taken in Response

In 2022, three boil water advisories were issued for the Town of Melita PWS. The advisories were all issued due to depressurization events and all three were successfully rescinded following testing.

4. Warnings Issued/Charges Laid in Accordance with the Drinking Water Safety Act

In 2022, no warnings were issued or charges laid for the Town of Melita PWS.

5. Major Expenses Incurred

None

6. Future System Expansion

None

7. Water Rates

In 2022, the Southwest Water Regional Water Co-op "SWRWC" increased their wholesale water rate from \$12.20 to \$13.04 per 1,000 gallons effective April 1st. Public Utilities Board Order #48/14 allows the Town of Melita to Pass Through the water rate increases from the SWRWC for water sales to our municipal members.

The Town of Melita approved a Pass-Through increase with By-Law No. 2022-004 of \$0.78 per 1,000 gallons effective April 1st, 2022, which reflected the current utility rate increase and water loss percentage.

Copies of the report can be picked up for free at the Town of Melita office or you can review the report online @ www.melitamb.ca

**** THIS REPORT HAS BEEN REVIEWED BY THE OFFICE OF DRINKING WATER – MARCH, 2023 ****