

RM of Gimli Annual Water System Operation Report – 2025

The RM of Gimli, Manitoba strives to provide high quality drinking water in sufficient quantity to meet the needs of the public. It is our goal to do so in a safe, cost-effective manner while remaining in compliance with the regulatory requirements governing the provision of drinking water.

Operating Licence PWS-09-308-03 for the RM of Gimli Public Water System: Effective December 1, 2023 – Expiry May 31, 2028

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 community.

Where do we get our water from?

The RM of Gimli obtains the water for the Town Site Utility system from 2 groundwater wells located in the Industrial Park west of Hwy 8. Each well has a pump that delivers water to the water treatment plant also in the Industrial Park where the water is chlorinated and stored in 3 cells to achieve the required 20-minute contact time. The distribution system is pressurized to 54 psi at the water treatment plant to ensure sufficient pressure everywhere in the distribution system.

The municipality has a reputation for quality ground water, as the source is a limestone dolomite aquifer formed from Lake Agassiz, a former glacial lake of which the residual is Lake Winnipeg. This aquifer is viewed as a superb water resource and water quality information has shown that, with treatment, water is the best source for a drinking water supply for our municipality. The raw water does contain iron at a concentration of up to 0.4mg/L, which slightly exceeds the Guidelines for Canadian Drinking Water Quality (GCDWQ) aesthetic objective of 0.3mg/L. While this concentration of iron does not pose any health risk, it can result in discolored water and staining of plumbing fixtures. In addition, the total hardness levels of the existing groundwater supply source are defined by GCDWQ are identified as poor, but tolerable.

Why do we treat our water?

We treat our water to ensure that safe and pleasing drinking water is supplied to the homes and businesses in the RM of Gimli. In addition, new Provincial Regulations have set health-based drinking water standards for all public water systems. The RM of Gimli is committed to meeting or exceeding the water quality standards set by the province.

What type of water treatment do we use?

Due to the high-water quality already existing in the aquifer, treatment is not required to ensure that the treated water conforms to the provincial *Drinking Water Safety Act*.

Why and how do we disinfect our water?

The final step in the treatment of safe water is disinfection. Disinfection is the selective destruction or inactivation of disease-causing organisms in water. The *Drinking Water Safety Act* and supporting regulations require that water is disinfected before it leaves the water treatment plant and that an adequate amount of disinfectant (free chlorine) is in the distribution system (water piping network) to ensure the water is safe right to the consumer's tap.

The treated water is disinfected using chlorination. Sodium hypochlorite (liquid chlorine) is used for disinfection. The chlorine feed system is in a separate room at the treatment plant. Sodium hypochlorite is supplied in 20L pails of 10.8% concentration. The chlorine system has 2 feed pumps, a duty pump and a backup pump. This system provides for an effective kill of any bacteria and provides a disinfectant residual in the approximately 20km of piping throughout the municipal site.

Are there any other chemicals added to our water? Why?

None.

How much water storage do we have?

We have 400,000 L of storage.

What is the 'distribution system'?

There is 1 Jockey pump for low flows and 3 duty pumps to handle demand as needed and 1 High Flow pump for fire demand when required. The water distribution system is the network of underground pipes used to carry the treated water from the water treatment plant to the homes and businesses in the municipality. We have approximately 18km of cast iron pipe in the town site and 5km of high-density polyethylene pipe that feeds the water mains throughout the Town Site of Gimli coming from the Industrial Park. The distribution system also delivers drinking water to the Industrial Park, Aspen Park and Pelican Beach subdivision. The piping is interconnected (looped) to ensure that fresh safe water is continuously supplied. We carry out regular maintenance in the distribution system such as our seasonal flushing program in May and fire hydrant testing in cooperation with the RM of Gimli Fire Department.

Classification and Certification:

The RM of Gimli water facility classification and Operators are certified under Manitoba Conservations Water and Wastewater Facility Operators Regulation under the Environment Act.

- Class 1 Water Treatment Facility Classification (WT)
- Class 2 Water Distribution System (WD)
- Certification level of operators
 - . Simon Chapnick Operator in training
 - . Robert Boitson Class 2 WT/WD
 - . Michael Conley Class 2 WT/WD

- . Derek Davies class 1 WT/WD
- . Mike Sulyma class 1 WT/WD

Is our water tested? What for? When?

Water tests are taken on a routine basis to ensure that the water is safe and to monitor how well the treatment plant is performing. We test the water at the Water Treatment Plant and in the distribution system at various locations and times. It is a regulatory requirement that all water test results associated with water safety be submitted to the provincial Office of Drinking Water for review.

Bacterial testing: We test the raw water (untreated well water), the treated water (leaving the Water Treatment Plant) and the water in the distribution system (within the RM of Gimli) every two weeks (bi-weekly) for the presence of Total Coliform and E. coli bacteria. If these bacteria are present in the water, it is an indication that disease causing organisms may also be present.

Disinfectant testing: We test the level of chlorine in the treated water every day to ensure that the water leaving the treatment plant has enough chlorine to ensure proper disinfection. We also test chlorine levels in the distribution system every time we take water samples for bacterial testing.

Chemical and Radiological Parameters: The R.M. of Gimli is required to test for chemical and radiological parameters once every three years to ensure that the parameters noted in the Drinking Water Safety Act are within the specified limits. The parameters noted in the Operating Licence are arsenic, benzene, fluoride, lead, nitrate, tetrachloroethylene, trichloroethylene, and uranium.

Water Chemistry Analyses: An analysis of the RM of Gimli's raw water is available every third year and is posted on the Gimli website www.gimli.ca.

The RM of Gimli will be continuing the Residential Lead Monitoring Program in 2026.

Directive: Province of Manitoba

The Province of Manitoba must ensure public and semi-public drinking water suppliers throughout Manitoba meet their regulatory requirements regarding monitoring for lead exposure at the tap. Details can be found on the RM web page.

What are the results of the tests for 2025?

We took 20 random tests of residential homes and 16 of them came back negative for lead. 4 were positive and were retested after flushing for an extended time and they tested negative.

Can we get copies? If are participating in the program and you would like to see the results they will be made available.

The following table summarizes all the treated water test results for 2024:

Testing Parameter	Standard	Performance Objective	Did we meet our process performance objectives?

Bacterial	0 Total Coliform (TC), 0 E, coli (EC)	0 Total Coliform (TC), 0 E, coli (EC)	Yes
Chlorine (leaving res.)	0.5mg/L	0.5mg/L	Yes
Chlorine (in piping network)	0.1mg/L	0.1mg/L	Yes
Iron	0.3 mg/L	0.26mg/L	No Testing

2025 testing results for the RM of Gimli water supply and Rural Municipality of Gimli Public Water System (75.00) 2025 General Chemistry results are summarized below and are available on the RM of Gimli Website www.gimli.ca.

Testing Parameter	Regulatory Requirement	Gimli Performance
Total Coliform	Less than one total coliform bacteria detectable per 100 mL in all treated and distributed water	100% No total Coliform detected
E.Coli	Less than one E. coli bacteria detectable per 100 mL in all treated and distributed water	100% No E.Coli detected
Chlorine Residual	A free chlorine residual of at least 0.5 mg/L in water entering the distribution system following a minimum contact time of 20 minutes. A free chlorine residual of at least 0.1 mg/L at all times at any point in the water distribution system	100% 100%
Arsenic	Less than or equal to 0.01 mg/L	Raw 0.00503 Treated 0.00350
Benzene	Less than or equal to 0.005 mg/L	Raw <0.00050
Ethylbenzene	Less than or equal to 0.14 mg/L	Raw <0.00050
Fluoride	Less than or equal to 1.5 mg/L	Raw 0.370 Treated 0.363
Lead	Less than or equal to 0.01 mg/L in the water distribution system	Raw <0.000092 Treated 0.000113
Nitrate	Less than or equal to 45 mg/L measured as nitrate (10mg/L measured as nitrogen)	Raw not detected Treated <0.010
Nitrite	Less than or equal to 3 mg/L measured as nitrite (1 mg/L measured as nitrogen)	Raw <0.0020 Treated <0.0020
Trichloroethylene	Less than or equal to 0.005 mg/L	Raw <0.00050
Tetrachloroethylene	Less than or equal to 0.01 mg/L	Raw <0.00050
Toluene	Less than or equal to 0.06 mg/L	Raw <0.00050

Total xylenes	Less than or equal to 0.09 mg/L	Raw <0.00050
Uranium	Less than or equal to 0.02 mg/L	Raw 0.000469 Treated 0.000488

What do we have in place to alert Public Works staff to water emergencies?

There are monitoring and alarm mechanisms in place to alert Utility operating staff to any emergencies that might affect the municipalities' water supply. Trained operators are available at any time to respond to emergencies as they arise.

Were there any emergencies, regulatory compliance issues or other operational issues to report for 2025? None

Water Main Repairs – 2025

On these dates and locations our staff responded to a water main break or water main replacement.

Date	Managed by	Area Affected	Contractor
April 22, 2025	Health Authority	2nd Avenue from Amisk Drive to Barney Thomas Drive	Southwood ventures
May 22, 2025	Health Authority	3rd Avenue from Roddy S Drive to Coleville Drive	Self

- The local water mains were repaired and flushed. As per Provincial Regulations, Corrective Actions Reports are not required to be completed and filed with the Office of Drinking Water. However, the officer of Drinking water is notified of each break and will determine if a boil water advisory is required.

Were there any major expenses incurred in 2025?

None

Boil Water Advisories Issued

2025 the RM of Gimli experience 2 boil water advisories issued by the Medical Health Officer.

Future system expansion or expenses expected?

In 2026/27 the RM of Gimli in partnership with Manitoba Water Service Board (MWSB) will continue to renew some of the water distribution lines in the town, this work will include 4th Ave. The RM of Gimli will continue applying for provincial/federal funding to assist in the rehabilitation of our aging water distribution system (piping network) as it comes available. If funding is not made available, the municipality will review the use of the reserve funds or may borrow funds. The repayment of the borrowing may come from a utility rate surcharge to the utility customers and will be subject to Public Utilities Board (PUB) approval.

In 2019 the RM of Gimli applied to the PUB for approval to amalgamate the LUD Water Utility, the Industrial Park Water Utility and the Pelican Beach Water Utility into the Amalgamated Water Utility. The amalgamation of the water utilities was approved by PUB Order #16/21 on January 25, 2021. The PUB approved revised water utility rates for the Amalgamated Water Utility by PUB Order # 37/22 on April 11, 2022.

Who can we call with questions or concerns regarding our drinking water?

For general questions during regular business hours, call the Utilities Department at 642-6688, Monday to Friday 8:00am – 4:30 pm. After hours Emergency telephone number 641-4667.