

**Town of Altona
Public Water System
Annual Report 2021**

The Town of Altona 2021 Annual Public Water System Annual Report will be placed on the Town website (www.altona.ca) on March 8, 2022.

Free paper copies of the report are available at the Town of Altona administration building located on 111 Centre Avenue East.

The public will be notified via the Town's website as well as a poster on the Town's bulletin board in the Town office.

**Town of Altona Public Water System
Annual Report 2021**

Name of the Public Water system: **Altona Public Water System**

Name of the Legal Owner: **The Town of Altona**

Phone: **204.324.6468**

Contact person: **Dan Gagné (CAO)**

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Supervisor: Clint Derksen

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Report Prepared: March 7, 2022

The 2021 Annual Report for the Town of Altona summarizes the Water Utility's ability to distribute safe potable water and meet provincial regulations.

1. Description of the Water System:

The Altona Public Water System (Altona PWS) provides potable water to a population of approximately 4,200 residents. Treated water supplied by the Pembina Valley Water Coop meets all objectives as stated in the Guidelines for Canadian Drinking Water Quality.

1.1 Water Supply Source

The Altona PWS receives treated water from Letellier which is 20 kilometers east of Altona. The Letellier plant draws water from the Red River and treats the water before distribution.

1.2 Distribution System

Treated water from the two reservoirs is pumped throughout the Altona distribution system via four variable frequency driven 15 horsepower duty pumps plus two 75 horsepower emergency pumps. The approximate 33 kilometers of piping is 99% looped and is comprised of 59% AC, 40% PVC, and 1% HDPE.

1.3 Storage Reservoirs

Name: North End Reservoir	Capacity: 3 222 000 L
Name: South End Reservoir	Capacity: 1 453 000 L

1.4 Number of Connections, population served and types of users

The Altona distribution system is comprised of 1,556 service connections. 2022 census indicates a population of 4267. All connections are metered. Domestic use is the largest consumer with approximately 65% while commercial use is approximately 35%.

1.5 Classification and Certification

Operators are certified under Manitoba Conservation's *Water and Wastewater Facility Operators Regulation* under the *Environment Act*

Clint Derksen- Supervisor	ID # 2014-081 - WD2, WWC2, WWT1
Matthew Aaron Schmidt	ID # 0008410 - WD2, WWC2, WWT1
Jackson Enns-Foreman	ID # 03223 - WD2, WWC2, WWT2
Scott Klassen-Assistant	ID # 03849 - WD2, WWC2, WWT2

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% liquid 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 and we maintain 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 Altona PWS ensures continuous disinfection is maintained by stocking all spare parts for all chlorinators.

Free Available and Total Chlorine residuals are monitored **daily** by staff, on-line chlorine analyzers at each reservoir, and bi-weekly throughout the distribution system. A Hach brand portable colorimeter test kit, which is calibrated annually, is used for the testing at the South reservoir. An Orbeca brand portable colorimeter test kit, which is also calibrated annually, is used for the testing at the North reservoir. All results are recorded on the appropriate monitoring forms and submitted to the Office of Drinking Water monthly. Bi-weekly samples are sent to ALS labs for testing. THM/HAA analysis are required every other year.

Tests performed bi-weekly:

- **Total Coliform:** 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.

Quarterly samples, every other year, are also collected in the distribution system and sent to the lab for **THM** testing and **HAA** testing.

- **THM** is the abbreviation for Trihalomethane, which is a chlorination/disinfection byproduct.
- **HAA** is the abbreviation for Halo Acetic Acid, which is a chlorination/disinfection byproduct.

2.2 Overall performance

For 2021, the Altona PWS met all daily and bi-weekly sampling requirements achieving a 100% efficiency rating. The following tables outline the requirements and performance of the PWS in

the Town of Altona for 2021 as outlined in the Operating License (see attached 2021 Annual Compliance Audit)

Disinfection Monitoring and Reporting

	Regulatory Requirement	PWS Performance
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	100%
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%
The PWS has met all regulatory requirements for 2021 in this area.		

Bacteriological Monitoring and Reporting

	Regulatory Requirement	PWS Performance
A) Number of samples of watering leaving the North End Reservoir Schedule A – MR 40/2007	26	100%
B) Number of samples of watering leaving the South End Reservoir	26	100%

Schedule A – MR 40/2007		
C) Number of distribution water samples Schedule A – MR 40/2007	26	100%
D) Frequency of Testing Schedule A – MR 40/2007	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 Section 3(1)a – MR 41/2007	0 EC per 100ml	100%
The Public Water System has met all regulatory monitoring requirements for 2021. The water system was deemed to be in compliance with all terms and conditions in the Operating License.		

Disinfection By-products Monitoring and Reporting – THMs and HAAs

Water System	Q1 THM	Q2 THM	Q3 THM	Q4 THM	Avg
ALTONA 4.00	N/A	N/A	N/A	N/A	N/A
Water System	Q1 HAA	Q2 HAA	Q3 HAA	Q4 HAA	Avg
ALTONA 4.00	N/A	N/A	N/A	N/A	N/A

Currently we are unable to achieve the required level of THM and HAA’s due to the treated water being out of compliance when it arrives at our distribution stations.

Engineering Assessment of Water System Infrastructure and Water Supply Source

As specified by the operating license, the Altona PWS was required to initiate an Engineering Assessment of the Water System Infrastructure and Water Supply Source. J.R. Cousin Consultants completed the Town of Altona Public Water System Assessment 2016 PWS 4.00. Two copies of the report were mailed to The Office of Drinking Water.

3. Water Rates

In 2021 our water rate was \$13.18 per 1000 Imperial gallons

4. Water System Incidents

In 2021 there were no major incidents.

4.1 Major Expenses

In 2021 we had to replace the distribution header in our North End Reservoir pumphouse. The emergency repair was coordinated with The Office of Drinking water and completed by Contec Projects.

In 2022 we plan to extend our distribution system to service a new industrial park.

5. Drinking Water Orders

In 2021 there were no Safety Orders issued for Altona Public Water System. (See attached 2021 Annual Compliance Audit.)

6. Boil Water Advisories (BWA's) issued and actions taken

In 2021 there were no Boil Water Advisories issued.

7. Operational Requirements

The Town of Altona is continually in non-compliance with both THM and HAA requirements issued for the Altona Public Water System. We are working with Pembina Valley Water Corporation to remedy this in the future.

8. Major Waterline Extensions 2021

In 2021 there were no major waterline extensions.

9. Future System Expansion

For 2022 the Town of Altona is looking into expanding our industrial park. If we are able to move forward with this, an extension of the water system would be required at the north end of 2nd Street NE.

The "Town of Altona Public Water System 2021 Annual Compliance Audit" performed by the Office of Drinking Water is attached for reference at the end of this report.

Report Prepared by:



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