

Town of Altona Public Water System Annual Report 2016

The Town of Altona 2016 Annual Public Water System Annual Report was placed on the town website (www.altona.ca) on January 26, 2017.

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, 2016

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

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

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Report Prepared: January 25th, 2017

The 2016 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 Water System provides potable water to a population of approximately 4,100 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 Water System receives treated water from Letellier which is 20 kilometres 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 reservoirs is pumped throughout the Altona distribution system via four 15 horsepower duty pumps and 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 1,375 service connections. 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	Cert # 2009-086 - WD2, WT1, WWC2, WWT1
Matthew Aaron Schmidt	Operator in Training
Jackson Enns	Operator in Training

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 Altona 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** by staff and on-line chlorine analyzers at the reservoirs and bi-weekly throughout the distribution system. A *Hach* portable colorimeter test kit, which is calibrated annually, is used for the testing at the South reservoir. An *Orbeca* 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. Bi-weekly samples are sent to ALS labs for testing. In 2016 quarterly samples were also tested for THM/HAA. Monthly chlorination reports are sent to the Drinking Water Officer at the end of each month.

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 are also collected in the distribution system and 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 2016, 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 2016 as outlined in the Operating License (see attached 2016 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 2016 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	27	100%
B) Number of samples of watering leaving the South End Reservoir Schedule A – MR 40/2007	27	100%
C)Number of distribution water samples Schedule A – MR 40/2007	27	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 Section3(1)a – MR 41/2007	0 EC per 100ml	100%
The Public water System has met all regulatory monitoring requirements for 2016. 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

As specified by the operating license, the Altona PWS had quarterly samples tested for THM/HAA. The results were emailed directly to The Office of Drinking Water from ALS Labs. On 4 of the 4 samples we are in non-compliance. The water is non-compliant entering our reservoirs.

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. JR Cousin Consultants has 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 System incidents

In 2016 there were no major incidents.

4. Drinking water orders

In 2016 there were no Safety orders issued for Altona Public Water System. (see attached 2016 Annual Compliance Audit)

5. Boil Water Advisories issued and actions taken

In 2016 there were no Boil Water Advisories issued for the Altona Public Water System.

6. Operational Requirements

The Town of Altona is 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.

7. Major Waterline Extensions 2016

In 2016 there were no major waterline extensions.

8. Future system expansion

In 2017 the Town of Altona has no plans for water main extensions or major repairs to the existing distribution system.

The "Town of Altona Public Water System 2016 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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