

Town of Altona Public Water System Annual Report 2020

The Town of Altona 2020 Annual Public Water System Annual Report will be placed on the town website (www.altona.ca) on January 8, 2021.

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 2020

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)**

Email: dan.gagne@altona.ca

Supervisor: Clint Derksen

Phone: **204.324.7467**

Email: clint.derksen@altona.ca

Senior Operator: Jackson Enns

Phone: **204.324.7022**

Email: waterworks@altona.ca

Report Prepared: January 4, 2021

The 2020 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 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 variable frequency driven 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 1,525 residential, industrial and commercial service connections. 2020 census indicates a population of 4212. 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 # 2014-081 - WD2, WWC2, WWT1
Matthew Aaron Schmidt	ID # 0008410 – WD2, WWC2, WWT1
Jackson Enns-Foreman	ID # 03223 – 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% 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 ensures continuous disinfection is maintained by stocking all spare parts for chlorinators.

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 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, and were performed in 2020.

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 2020, 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 2020 as outlined in the Operating License (see attached 2020 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 2020 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 Schedule A – MR 40/2007	26	100%
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 Section3(1)a – MR 41/2007	0 EC per 100ml	100%
The Public Water System has met all regulatory monitoring requirements for 2020, excluding THM/HAA. The water system was deemed to be in compliance with all other 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	0.137	0.106	0.205	0.156	0.151
Water System	Q1 HAA	Q2 HAA	Q3 HAA	Q4 HAA	Avg
ALTONA 4.00	0.0646	0.0509	0.0822	0.058	0.064

Currently we are unable to consistently 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 2020 our water rate was \$12.99 / 1000 Imperial gallons

4. Water System Incidents

In 2020 there were no major incidents.

4.1 Major Expenses

In 2020 there were no major expenses outside of the extension projects listed.

In 2021 we will be replacing the distribution header in the North Water Reservoir pumping station with new stainless-steel piping.

5. Drinking Water Orders

In 2020 there were no Safety orders issued for Altona Public Water System. (see attached 2020 Annual Compliance Audit)

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

In 2020, we issued the following BWA's:

1. BWA issued by the ODW on June 6 due to a mechanical failure at the Letellier water treatment plant. Rescinded on June 8.
2. Precautionary BWA issued for Lynnwood Bay NW on June 22 due to depressurization of a water main for the installation of an extension to service a new development. Samples sent in on June 23 and 24. BWA rescinded on June 25th.
3. BWA issued for a section of 3rd Street NW on August 7 due to water main break caused by road work. Samples brought in on the 8th and 9th. BWA rescinded on August 10th.
4. BWA issued for South Park Village trailer park and a section of 3rd Street NW due to depressurization of a water main to allow for a tie in for a new development on November 2nd.
5. Office of Drinking Water ordered the Pembina Valley Water Co-op to perform upgrades at the Letellier treatment plant. Work started on December 8th. BWA issued for every municipality in the distribution system. BWA rescinded on December 18th.

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 2020

In 2020 there were two extensions for new developments (PWS-08-P41A & PWS-20-P23). Both extensions were completed in a timely manner. PWS-08-P41A was a 300m extension of an existing development that added 46 residential lots to complete a crescent. This extension eliminated a water main dead end. PWS-20-P23 was a 220m extension to service a new subdivision feeding 57 residential units.

9. Future System Expansion

In 2021 the Town of Altona has not planned any expansion of our system.

The "Town of Altona Public Water System 2020 Annual Compliance Audit" performed by the Office of Drinking Water is attached for reference.

Report Prepared by:

A handwritten signature in black ink, appearing to read "Clint Derksen", with a long horizontal flourish extending to the right.

Clint Derksen
Public Works Manager
Town of Altona
Office: 204.324.6439
Cellular: 204.324.7467
clint.derksen@altona.ca



PUBLIC NOTICE

BOIL WATER ADVISORY FOR TOWN OF ALTONA WATER SYSTEM

June 6, 2020

A distribution pump failure on June 6, 2020 has led to the loss of water pressure in a portion of the Red River Regional distribution system which supplies the Altona public water system. Distribution depressurization can compromise the safety of the water supply; therefore, a boil water advisory has been issued to ensure public health protection.

RECOMMENDATIONS

Until further notice, all water used for consumption should be brought to a rolling boil for at least one minute before it is used for:

- Drinking and ice making
- Beverage preparation, such as infant formula
- Preparing food; including washing fruits and vegetables
- Brushing teeth

It is **not** necessary to boil tap water used for other household purposes, such as laundry or washing dishes. Adults and older children that are able to avoid swallowing the water can wash, bathe, or shower. Young children should be sponge bathed. If boiling is not practical, an alternate and safe supply of water should be used for consumptive purposes (i.e., bottled water).

Boil Water Advisory Fact Sheet #1 – Boil Water Advisory For Drinking Water Only contains additional information on water use and can be found at the website shown below.

All commercial, public and permitted facilities (i.e., restaurants, health care facilities, day cares, personal care homes and other private facilities that provide food and water services) must follow water use recommendations from the **Boil Water Advisory Fact Sheet #3 – Boil Water Advisory For Commercial/Public Facilities**. A copy of this Fact Sheet is available on the website below.

To review Fact Sheets on water use, please go to www.manitoba.ca/drinkingwater or <http://www.gov.mb.ca/health/publichealth/environmentalhealth/water.html>.

To avoid burn injuries from hot water, caution should be taken. Please keep young children away from boiling water. Place kettles and pots away from counter and stove edges.

Please share this information with other people who use the tap water, especially those who may not have received this notice directly (for example, renters, tenants, staff or clients). This notice can also be posted in common areas where people tend to gather.

DURATION

The Boil Water Advisory will remain in effect until at least Monday, June 8, 2020 in order to determine that the water supplied by this water system no longer presents a risk to public health. The public will be notified when the advisory has been rescinded. Residents are asked to consult the Town of Altona website (www.altona.ca) or social media (www.facebook.com/townofaltona).

If you have any questions or concerns, please contact the Town of Altona Administration Office at 204-324-6439, or the Regional Drinking Water Officer at 204-795-6908, or Health Links at 204-788-8200 (toll free at 1-888-315-9257).



Office of Drinking Water
1007 Century Street, Winnipeg MB R3H 0W4

**PERMIT TO CONSTRUCT OR ALTER
A PUBLIC WATER SYSTEM**

PERMIT NUMBER: PWS-20-P23

**THE DRINKING WATER SAFETY ACT
CCSM CAP C. 36**

WATER SYSTEM CODE: 4.00

EFFECTIVE DATE: 27 JULY 2020

EXPIRY DATE: 01 OCTOBER 2021

IN ACCORDANCE WITH THE DRINKING WATER SAFETY ACT, THIS PERMIT IS ISSUED PURSUANT TO SUBSECTION 7(1) TO:

K-BLOCK DEVELOPMENTS INC. (6568743 MB LTD.): "THE PERMITTEE"

FOR ALTERATION OF THE ALTONA (RED RIVER REGIONAL) PUBLIC WATER SYSTEM CONSISTING OF 220M OF WATERMAIN EXTENSIONS ALONG 3RD STREET NW AND 10TH AVE. NW TO EXTEND WATER SERVICE TO A SUBDIVISION WITH 16 SERVICE CONNECTIONS FEEDING 57 RESIDENTIAL UNITS (251 3RD STREET SUBDIVISION) IN THE TOWN OF ALTONA; AS SPECIFIED IN THE PERMIT APPLICATION AND FOLLOW-UP TECHNICAL CORRESPONDENCE, SUBJECT TO THE ATTACHED TERMS AND CONDITIONS.

THE PROPOSED WORK WAS REVIEWED FOR COMPLIANCE WITH THE DRINKING WATER SAFETY ACT AND OFFICE OF DRINKING WATER GUIDELINES, AND GENERAL CONFORMANCE WITH DRINKING WATER INDUSTRY STANDARDS. OTHER ASPECTS OF THE WORK INCLUDING STRUCTURAL, MECHANICAL, ELECTRICAL, AND WORKPLACE SAFETY ARE NOT THE SUBJECT OF THIS PERMIT. THIS PERMIT DOES NOT AFFECT THE PERMITTEE'S OBLIGATIONS WITH RESPECT TO COMPLIANCE WITH ALL APPLICABLE MUNICIPAL, PROVINCIAL, AND FEDERAL LEGISLATION INCLUDING REQUIREMENTS UNDER THE ENVIRONMENT ACT, THE WATER RIGHTS ACT, AND THE GROUND WATER AND WATER WELL ACT.

DATE: 27 July 2020

Original signed by...
Kimberley A. Philip, P.Eng.
Director

TERMS AND CONDITIONS

1. GENERAL

- 1.1. The Permittee shall perform the approved alteration of the water system works in accordance with the documents submitted, all applicable requirements of The Drinking Water Safety Act and its regulations, and the requirements of this Permit. In the event of an inconsistency between the specific requirements of terms and conditions of this Permit imposed on the authority of subsection 7(3) of The Act and the general requirements of The Act and regulations, the specific requirements of this Permit shall apply.
- 1.2. This Permit may be amended by the Director where in the opinion of the Director, an amendment is necessary to provide for the safety of water obtained from the water system or for the purposes of effective environmental management.
- 1.3. The Permittee may request an amendment to this Permit by submitting an amendment application to the Office of Drinking Water.
- 1.4. The Permittee shall ensure that any change in the design or installation that materially impact upon the effectiveness of the approved water system works is submitted by the design engineer in writing to the Office of Drinking Water and approved prior to the start of construction.
- 1.5. This Permit may be suspended or cancelled by the Director for any of the reasons identified in Section 6 of Manitoba Regulation 40/2007 Drinking Water Safety Regulation or due to a failure to comply with any term or condition of this permit.
- 1.6. The Permittee shall provide written notice to the Office of Drinking Water of any change in title/ownership of the water system within 30 days of the transfer of title/ownership.

2. CONSTRUCTION – GENERAL

- 2.1. The Permittee shall ensure that all necessary measures are taken to prevent adverse environmental effects from the approved alteration of the water system works including damage to land, vegetation and watercourses.
- 2.2. The Permittee shall complete the approved alteration of the water system works by the expiry date indicated on the Permit. If construction is not completed by the expiry date of the Permit, the Permittee shall request an amendment to the Permit.
- 2.3. The Permittee shall ensure that the Drinking Water Officer is immediately notified upon recognizing that construction work may result in any concern over the safety of the municipal water supply.
- 2.4. The Permittee shall ensure that minimum horizontal separation of 3m, measured between closest pipe edges, is maintained between the watermain and sewer mains where the piping runs parallel.

- 2.5. The Permittee shall ensure that minimum vertical separation of 0.45m, measured between closest pipe edges, is maintained at any watermain crossings of sewer mains or sewage forcemains, and minimum vertical separation of 0.3m at any watermain crossings with sewer service lines, with the watermain located above, wherever possible. Watermains must be encased in watermain-grade pipe at 3m and beyond, if crossing below sewage forcemains. Where a watermain crosses below a sewer main or sewage forcemain, special care and attention are required for pipe installation to ensure adequate structural support of the pipe.
- 2.6. The Permittee shall ensure that the maximum water demand exerted will not adversely affect the ability to maintain a minimum pressure of 140 kPa in the distribution system.

3. CONSTRUCTION – MATERIALS

- 3.1. The Permittee shall ensure that all components and materials for the approved water system works including piping and associated appurtenances are ANSI/NSF Standard 61 certified, CSA certified, meet applicable AWWA Standards or meet other potable water standards approved by the Director.
- 3.2. The Permittee shall ensure that all chemicals potentially in contact with potable water including sodium hypochlorite solutions are ANSI/NSF Standard 60 or ANSI/NSF Standard 61 certified, meet applicable AWWA Standards, or meet other potable water standards approved by the Director.
- 3.3. The Permittee shall ensure that all materials used in the construction of the approved water system works are kept as clean as possible during construction in order to prevent contamination.

4. DISINFECTION OF WORKS

- 4.1. The Permittee shall ensure that the water pipelines, service lines and associated appurtenances are disinfected before being placed into service in accordance with AWWA Standard C651 or Manitoba Water Services Board (MWSB) Standard Construction Specifications (latest), and that a copy of all associated test results are maintained as water system records for a minimum of 24 months.



**PERMIT TO CONSTRUCT OR ALTER
A PUBLIC WATER SYSTEM**

PERMIT NUMBER: PWS-08-P41A

**THE DRINKING WATER SAFETY ACT
CCSM CAP C. 36**

WATER SYSTEM CODE: 4.00

EFFECTIVE DATE: 08 OCTOBER 2008

EXPIRY DATE: 01 OCTOBER 2021

IN ACCORDANCE WITH THE DRINKING WATER SAFETY ACT, THIS PERMIT IS ISSUED PURSUANT TO SUBSECTION 7(1) TO:

R09 LTD.: "THE PERMITTEE"

FOR ALTERATION OF THE ALTONA PUBLIC WATER SYSTEM CONSISTING OF WATERMAIN EXTENSIONS ALONG MILLENIUM DRIVE, LYNNWOOD DRIVE AND CREEKSIDE WAY TO EXTEND WATER SERVICE TO THE 46-LOT PARKLAND LIVING SUBDIVISION DEVELOPMENT IN THE TOWN OF ALTONA, AS SPECIFIED IN THE PERMIT APPLICATION, SUBJECT TO THE ATTACHED TERMS AND CONDITIONS.

THE PROPOSED WORK WAS REVIEWED FOR COMPLIANCE WITH THE DRINKING WATER SAFETY ACT AND OFFICE OF DRINKING WATER GUIDELINES, AND GENERAL CONFORMANCE WITH DRINKING WATER INDUSTRY STANDARDS. OTHER ASPECTS OF THE WORK INCLUDING STRUCTURAL, MECHANICAL, ELECTRICAL AND WORKPLACE SAFETY ARE NOT THE SUBJECT OF THIS PERMIT. THIS PERMIT DOES NOT AFFECT THE PERMITTEE'S OBLIGATIONS WITH RESPECT TO COMPLIANCE WITH ALL APPLICABLE MUNICIPAL, PROVINCIAL AND FEDERAL LEGISLATION INCLUDING REQUIREMENTS UNDER THE ENVIRONMENT ACT, THE WATER RIGHTS ACT AND THE GROUND WATER AND WATER WELL ACT.

DATE: 20 May 2020

Kimberley A. Philip, P.Eng.
Director

TERMS AND CONDITIONS

1. GENERAL

- 1.1. The Permittee shall perform the approved alteration of the water system works in accordance with the documents submitted, all applicable requirements of The Drinking Water Safety Act and its regulations, and the requirements of this Permit. In the event of an inconsistency between the specific requirements of terms and conditions of this Permit imposed on the authority of subsection 7(3) of The Act and the general requirements of The Act and regulations, the specific requirements of this Permit shall apply.
- 1.2. This Permit may be amended by the Director where in the opinion of the Director, an amendment is necessary to provide for the safety of water obtained from the water system or for the purposes of effective environmental management.
- 1.3. The Permittee may request an amendment to this Permit by submitting an amendment application to the Office of Drinking Water.
- 1.4. The Permittee shall ensure that any change in design or installation that materially impact the effectiveness of the water system works are submitted by the design engineer in writing to the Office of Drinking Water and are approved prior to the change being completed.
- 1.5. This Permit may be suspended or cancelled by the Director for any of the reasons identified in Section 6 of Manitoba Regulation 40/2007 Drinking Water Safety Regulation or due to a failure to comply with any term or condition of this Permit.
- 1.6. The Permittee shall provide written notice to the Office of Drinking Water of any change in title/ownership of the water system within 30 days of the transfer of title/ownership.

2. CONSTRUCTION – GENERAL

- 2.1. The Permittee shall ensure that measures are taken to prevent adverse environmental effects from the approved alteration of the water system works including damage to land, vegetation and watercourses.
- 2.2. The Permittee shall complete construction of the approved water system works by the expiry date indicated on the Permit. If construction will not be completed by the expiry date of the Permit, the Permittee shall request an amendment to the Permit.
- 2.3. The Permittee shall immediately notify the Drinking Water Officer upon recognizing that construction work may result in depressurization within the distribution system, or any other concern about the safety of the municipal water supply.
- 2.4. The Permittee shall ensure that minimum horizontal separation of 3m, measured between closest pipe edges, is maintained between the watermain and sewer mains where the piping runs parallel, except within Creekside Way, where minimum horizontal separation of 1m and minimum vertical separation of 0.45m, watermain above, must be maintained.

- 2.5. The Permittee shall ensure that minimum vertical separation of 0.45m, measured between closest pipe edges, is maintained at any watermain crossings of sewer mains, and minimum vertical separation of 0.3m at any watermain crossings with sewer service lines, with the watermain located above, wherever possible. Where a watermain must cross below a sewer main, special care and attention are required to pipe installation to ensure adequate structural support of the pipe. Pipe joints must be located away from the crossing.
- 2.6. The Permittee shall ensure that the maximum water demand exerted will not adversely affect the ability to maintain a minimum pressure of 140 kPa in the distribution system.

3. CONSTRUCTION – MATERIALS

- 3.1. The Permittee shall ensure that all components and materials for the approved water system works including piping and associated appurtenances are ANSI/NSF Standard 61 certified for use in potable water systems, CSA certified, meet applicable AWWA Standards or meet other potable water standards accepted by the Director.
- 3.2. The Permittee shall ensure that all chemicals potentially in contact with potable water including sodium hypochlorite solutions are ANSI/NSF Standard 60 or ANSI/NSF Standard 61 certified for use in potable water system, meet applicable AWWA Standards, or meet other potable water standards accepted by the Director.
- 3.3. The Permittee shall ensure that all materials used in the construction of the approved water system works are kept as clean as possible during construction in order to prevent contamination.

4. DISINFECTION OF WORKS

- 4.1. The Permittee shall ensure that all watermains, water service lines and associated appurtenances are disinfected prior to the commencement of operation in accordance AWWA Standard C651, The City of Winnipeg Standard Construction Specifications CW 2125, or The Manitoba Water Services Board Standard Construction Specifications May 2015 Section 027060 Clause 3.21, and that a copy of confirmatory bacterial test results are maintained as water system records for a minimum of 24 months.