

# Carman Water System Annual Report - 2021



Town of Carman  
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Carman, Mb  
R0G 0J0  
Carman Town Office: 204-745-2443  
Water Treatment Plant / pump house: 204-745-2481  
Superintendent: Joe Richardson  
Utilities Manager: Darcy Hayward

A copy of this report is available to the public via the Town Of Carman website: [www.carmanmanitoba.ca](http://www.carmanmanitoba.ca) or, a free paper copy may be obtained at our Town office at the address above.

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## **1. Introduction**

The Town of Carman Manitoba strives to provide high quality drinking water in sufficient quantities to meet public needs. It is our goal to do so in a safe and cost-effective manner, while remaining in compliance with the regulatory requirements governing the provision of safe drinking water. It is our belief that the public has a right to access the information related to the drinking water they consume. To that end, the following report has been prepared for the Community of Carman public water system.

On June 23rd, 2021, The Town of Carman began supplying water from our newly constructed storage reservoir and pump house, and began decommissioning the water treatment plant. The Town of Carman is now supplied drinking water solely from the Water Treatment Plant at Stephenfield Lake.

## **2. Sources**

The Boyne River was Carman's previous raw water supply source, entering town on the west side coming from Stephenfield Lake. River flow is controlled by a rock dam located near the golf course. Water entered an intake located just west of the water treatment plant. A portion of Carman's drinking water, while the treatment plant was in service was supplied through the Pembina Valley Water Co-op's water main, originating at Stephenfield Lake. The Stephenfield water treatment plant adheres to the same provincial testing and water quality guidelines as Carman. With the expansion of the water treatment plant at Stephenfield Lake and water main extensions now supplying the new reservoir in Carman, the need for a water treatment plant in Carman is now not required. Treated water can also be supplied via the Morris water treatment plant in case of emergencies. For more information about the Pembina Valley Water Cooperative's Stephenfield water treatment plant, please visit their website, here: [Pembina Valley Water Cooperative Inc. – Using Water Wisely \(pvwc.ca\)](https://www.pvwc.ca)

As of June 23rd, we receive 100% of our water from The Pembina Valley Water Coop (PVWC). It all comes from the Stephenfield Water Plant with the ability as well under emergency to receive from the Morris plant through the Roland Reservoir.

### **Why do we treat our water?**

We treat our water to ensure that safe and aesthetically pleasing drinking water is supplied to the homes and businesses in Carman. In addition, provincial regulations have set health-based drinking water standards for all public water systems in Manitoba. The Town of Carman is committed to meeting and exceeding all water quality standards as set by the province of Manitoba.

Previously to water being supplied solely by the Stephenfield water treatment plant, a conventional water treatment plant existed in Carman. Lime/soda softening, integrated with coagulation, flocculation, and sedimentation in our solids contacting unit process was then followed by filtration. This allowed us to clarify, and soften the water. The removal of the microbial contaminants such as viruses and organic materials that are naturally found in river waters is removed with the filtration process. Filtered water was then disinfected using chlorine gas.

## **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 bacterial organisms in water. The Drinking Water Safety Act and supporting regulations require that the water be disinfected before it leaves the water treatment facility and that adequate amounts of disinfectant are present in the distribution system to ensure the water is safe all the way to the consumer's tap. Treated water is disinfected by way of chlorination. Chlorine is added to kill bacteria and viruses that are commonly found in surface waters such as the Boyne River. An adequate amount of chlorine is added before the water enters the storage reservoir and water tower to provide chlorine contact time, and to provide a disinfectant residual in the 25 km of water piping throughout the Town of Carman.

Our new pump house also contains a means to provide additional chlorination with 2 pumps available in case of emergency, or if additional disinfectant is required. However, upgrades to the SWTP membrane plant have provided much more stable chlorine residuals in the Carman distribution system and re-chlorination at the Carman pump house is currently required. Chlorine residuals are continually monitored with online monitors and manual daily tests.

## **Are any other chemicals added to our water? Why?**

The addition of fluoride to water supplies are strictly controlled and reduce dental cavities in younger children. The fluoride ion, naturally or artificially present in drinking water, is absorbed to some degree by tooth enamel. This absorption protects the teeth from decay. Manitoba Health, Seniors and Active living funds and closely monitors the concentrations that are found in the drinking water. Bi-weekly reports are supplied to ensure proper dosing. In 2011, Manitoba health and Healthy living reduced the optimum concentration from 1.00 mg/L to 0.7 mg/L, with acceptable levels ranging from 0.6 – 0.9 mg/L

### **3. Water storage and distribution**

A reservoir was built underneath the original Carman Water Treatment Plant where water was previously held, then passed through to the water tower. Carman's water tower is what was used to pressurize the distribution system through gravitational force. The reservoir and tower combined held approximately 1,350 cubic meters of water, which satisfied water user's needs.

The new storage reservoir and pump house has a capacity of 3600 cubic meters or 800,000 US gallons. There is roughly 3.5 - 4 days of storage in summer or peak demand periods, and 4.5 - 5 days in winter or lower demand periods. The old reservoir and water tower have since been taken out of service and demolished, with the tank from the tower remaining on the ground until Town Council finds its new purpose.

## **What is the "distribution system"?**

The water distribution system is the network of underground pipes used to carry the treated water from the water treatment facility to the homes and businesses in Carman. We have 25km of cast iron, AC and PVC piping. The piping is interconnected to ensure that fresh safe water is continuously supplied. Regular maintenance is performed in the distribution system including the seasonal fire hydrant flushing program in September/October. We did not flush any of our hydrants in 2021 due to drought conditions. Hopefully we will be able to do a full flushing program in 2022. Seasonal flushing of the distribution allows for the removal of sediment in water mains that may have accumulated over time.

### **4. Water testing the why, where, and how**

#### **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 facility is performing. We test the water at the 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.

**Bacteriological testing:** We test the raw water (untreated river water), the treated water (leaving the water treatment plant) and the water in the distribution system (within the Town of Carman) every two weeks for the presence of Total Coliforms (non-harmful bacteria). If these bacteria are present in the water, it is an indication that disease-causing bacteria may also be present. Tests for the presence of E-Coli (most common harmful bacteria) are also conducted at the same time.

**Disinfectant testing:** We test the level of chlorine in the treated water every day to ensure that the water leaving the treatment facility has enough chlorine to ensure proper disinfections. As of mid-2010 the Water Plant has had online monitoring for the free chlorine levels. This means that the levels are continuously monitored with a reading being logged every 5 minutes. We also test chlorine levels in the distribution system every time we take water samples for bacterial testing.

The new pump house is equipped with 2 online CL2 monitors (1 on incoming line, 1 on discharge), so it is continuously monitored. Daily manual tests are done for free CL22 and once a week for Total CL2.

**Turbidity testing:** Turbidity is a measurement of the clarity of water. We use turbidity to tell us how well our treatment system is working to remove particles and other contaminants that can cause the water to look cloudy and affect our disinfection process. Turbidity is tested daily as the raw river water enters the treatment facility and with the addition of online turbidity monitors, it is measured continuously and a reading logged every 5 minutes after each filter.

**Hardness testing:** There are 2 main types of Carbonate Hardness, calcium hardness and magnesium hardness; we test for the Calcium and the Total hardness of the raw water coming into the plant. We can calculate the magnesium hardness by subtraction. We use these two tests of the raw water to determine the general amount of Lime is required to soften the water. We test for hardness once again after the Clarifier to determine the finer setting of the Lime dosage.

**Alkalinity testing:** Alkalinity is the measure of how reactive the water is with acid. We test for this because we can determine the amount of Non-Carbonate Hardness in the water and this determines the general setting of the Soda Ash dosage for softening. Like in the Hardness testing we test the raw water to get a general dosage amount and the Clarified water to fine tune the dosage amount.

**Trihalomethanes (THMs):** Trihalomethanes are formed when chlorine reacts with naturally occurring organic matter in the water. Studies have shown a link between high levels of THMs and cancer. For that reason, the province has set a health-based standard for THMs of 100 micrograms per liter of water or 0.100 ppm. The THM standard is based on an average of four samples per year. We test THM levels in one location in the distribution system on a seasonal basis. Due to the type of water that Carman uses for its drinking water (Boyne River) the levels for THMs is above the provincial standard of 0.100 ppm.

**Haloacetic Acids (HAAs):** Haloacetic acids (HAAs) are a common undesirable by-product of using Chlorine to disinfect drinking water. Exposure to such by-products in drinking water, at high levels over many years, has been associated with a number of health outcomes by epidemiological studies; due to this the provincial and federal governments have set a limit of 80 micrograms per liter of water or 0.08 mg/L. HAAs can be formed by chlorination, ozonation or chloramination of water with formation promoted by slightly acidic water, high organic matter content and elevated temperature. Chlorine from the water disinfection process can react with organic matter and small amounts of bromide present in water to produce various HAAs.

THMs and HAAs are submitted every other year in even numbered years. THM and HAA sampling will resume in 2022.

### **Lead Sampling:**

The lead sampling program that was to start in 2020/21 has been postponed due to Covid-19 pandemic.

### **Other Important Information:**

The Office of Drinking Water participates in the Federal-Provincial-Territorial Committee on Drinking Water that approves the Guidelines for Canadian Drinking Water Quality. Drinking water quality standards applied in Manitoba regulations are consistent with current Health Canada guidelines, and the Office of Drinking Water

monitors the potential impact of proposed changes to Manitoba water systems. Health Canada recently published new technical guidelines on cyanobacteria (algae), manganese, and lead.

Canadian Drinking Water guidelines can be found at <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/water-quality/drinking-water/canadian-drinking-water-guidelines.html>

Owners and operators are encouraged to review this information and to determine what impact they may have on the water supply.

### What were the results of water testing in 2021?

The following table summarizes treated water testing results for 2021:

Testing Parameter	Standard	Carman WTP Performance	Standard Met
Bacteriological	0/100 mL Coliforms 0/100 mL E. Coli	100 %	Yes
Chlorine Leaving Reservoir	0.5 mg/L	100 %	Yes
Chlorine in distribution system	0.1 mg/L	100 %	Yes
Turbidity	0.3 NTU 95% of the time, Never exceed 1.0 NTU	99%	Yes
Total Trihalomethanes (THMs) - Samples collected every other year, beginning in 2020	<0.100 mg/L	2020 average – 0.01270 mg/L	2020 – Yes
Total Haloacetic Acids (HAAs) – Samples collected every other year, beginning in 2020	<0.08 mg/L	2020 average - 0.0180 mg/L	2020 – Yes

### 2021 Bacteriological Testing Results:

ALS			E. Coli	Total Coliforms
Sample ID	ALS ID	Date Sampled	MPN/100ML	MPN/100ML
TOC - Distribution @ Treated	L2546850-2	1/11/2021	0	0
TOC - Distribution @ Rob's House	L2546850-3	1/11/2021	0	0
TOC - Distribution @ Darcy's House	L2546850-4	1/11/2021	0	0
TOC - Distribution @ Treated	L2551223-2	1/25/2021	0	0
TOC - Distribution @ Ed's Tire	L2551223-3	1/25/2021	0	0
TOC - Distribution @ 83-8th St. NW	L2551223-4	1/25/2021	0	0
TOC - Distribution @ Treated	L2555517-2	2/8/2021	0	0
TOC - Distribution @ Darcy's House	L2555517-3	2/8/2021	0	0
TOC - Distribution @ Carman Hospital	L2555517-4	2/8/2021	0	0
TOC - Distribution @ Treated	L2559651-2	2/22/2021	0	0
TOC - Distribution @ Rob's House	L2559651-3	2/22/2021	0	0
TOC - Distribution @ Vanderveen Commodities	L2559651-4	2/22/2021	0	0
TOC - Distribution @ Treated	L2564520-2	3/8/2021	0	0
TOC - Distribution @ Darcy's House	L2564520-3	3/8/2021	0	0
TOC - Distribution @ Ed's Tire	L2564520-4	3/8/2021	0	0
TOC - Distribution @ Treated	L2569079-2	3/22/2021	0	0
TOC - Distribution @ Elementary School	L2569079-3	3/22/2021	0	0

TOC - Distribution @ High School	L2569079-4	3/22/2021	0	0
TOC - Distribution @ Treated	L2573374-2	4/6/2021	0	0
TOC - Distribution @ Carman Golf Club	L2573374-3	4/6/2021	0	0
TOC - Distribution @ Public Works Shop	L2573374-4	4/6/2021	0	0
TOC - Distribution @ Knockabouts	L2574741-1	4/8/2021	0	0
TOC - Distribution @ Mitchell Accounting	L2574741-2	4/8/2021	0	0
TOC - Distribution @ Flower Shop	L2574741-3	4/8/2021	0	0
TOC - Distribution @ Knockabouts	L2575205-1	4/9/2021	0	0
TOC - Distribution @ Mitchell Accounting	L2575205-2	4/9/2021	0	0
TOC - Distribution @ Flower Shop	L2575205-3	4/9/2021	0	0
TOC - Distribution @ Treated	L2577893-2	4/19/2021	0	0
TOC - Distribution @ Carman Hospital	L2577893-3	4/19/2021	0	0
TOC - Distribution @ Darcy's House	L2577893-4	4/19/2021	0	0
TOC - Distribution @ 142 Bishop Bay	L2579516-1	4/22/2021	0	0
TOC - Distribution @ 10 Bishop Bay	L2579516-2	4/22/2021	0	0
TOC - Distribution @ 70 Bishop Bay	L2579516-3	4/22/2021	0	0
TOC - Distribution @ 142 Bishop Bay	L2579873-1	4/23/2021	0	0
TOC - Distribution @ 10 Bishop Bay	L2579873-2	4/23/2021	0	0
TOC - Distribution @ 70 Bishop Bay	L2579873-3	4/23/2021	0	0
TOC - Distribution @ Knockabouts	L2581335-1	4/28/2021	0	0
TOC - Distribution @ Flower Shop	L2581335-2	4/28/2021	0	0
TOC - Distribution @ Mitchell Accounting	L2581335-3	4/28/2021	0	0
TOC - Distribution @ Knockabouts	L2582012-3	4/29/2021	0	0
TOC - Distribution @ Flower Shop	L2582012-4	4/29/2021	0	0
TOC - Distribution @ Mitchell Accounting	L2582012-5	4/29/2021	0	0
TOC - Distribution @ Treated	L2582831-2	5/3/2021	0	0
TOC - Distribution @ Darcy's House	L2582831-3	5/3/2021	0	0
TOC - Distribution @ Ed's Tire	L2582831-4	5/3/2021	0	0
TOC - Distribution @ Campground Seasonal Opening	L2585731-3	5/10/2021	0	0
TOC - Distribution @ Campground Seasonal Opening	L2586212-3	5/11/2021	0	0
TOC - Distribution @ Treated	L2588560-2	5/17/2021	0	0
TOC - Distribution @ Rob's House	L2588560-3	5/17/2021	0	0
TOC - Distribution @ Campground	L2588560-4	5/17/2021	0	0
TOC - Distribution @ Rob's House	L2589409-3	5/20/2021	0	0
TOC - Distribution @ Town Office	L2589409-4	5/20/2021	0	0
TOC - Distribution @ Elementary School	L2589409-5	5/20/2021	0	0
TOC - Distribution @ Treated	L2594267-2	5/31/2021	0	0
TOC - Distribution @ Darcy's House	L2594267-3	5/31/2021	0	0
TOC - Distribution @ Carman Golf Club	L2594267-4	5/31/2021	0	0
TOC - Distribution @ Treated	L2600812-2	6/14/2021	0	0
TOC - Distribution @ Rob's House	L2600812-3	6/14/2021	0	0
TOC - Distribution @ LCL Construction	L2600812-4	6/14/2021	0	0
TOC - Distribution @ Carman Golf Club	L2607076-3	6/28/2021	0	0
TOC - Distribution @ Ed's Tire	L2607076-4	6/28/2021	0	0
TOC - Distribution @ Campground	L2610301-1	7/6/2021	0	0
TOC - Distribution @ Carman Motor Inn	L2610301-2	7/6/2021	0	0
TOC - Distribution @ Linear Grain	L2610301-3	7/6/2021	0	0
TOC - Distribution @ Campground	L2611014-1	7/7/2021	0	0

TOC - Distribution @ Carman Motor Inn	L2611014-2	7/7/2021	0	0
TOC - Distribution @ Linear Grain	L2611014-3	7/7/2021	0	0
TOC - Distribution @ Boyne Lodge	L2612222-1	7/9/2021	0	0
TOC - Distribution @ 28 Bradford Road	L2612222-2	7/9/2021	0	0
TOC - Distribution @ Carman Golf Club	L2612222-3	7/9/2021	0	0
TOC - Distribution @ Boyne Lodge	L2612403-1	7/10/2021	0	0
TOC - Distribution @ 28 Bradford Road	L2612403-2	7/10/2021	0	0
TOC - Distribution @ Carman Golf Club	L2612403-3	7/10/2021	0	0
TOC - Distribution @ Darcy's House	L2612512-1	7/12/2021	0	0
TOC - Distribution @ Res Outgoing	L2612512-2	7/12/2021	0	0
TOC - Distribution @ Carman Hospital	L2612512-3	7/12/2021	0	0
TOC - Distribution @ Boyne Lodge	L2618519-1	7/26/2021	0	0
TOC - Distribution @ South Central Building	L2618519-2	7/26/2021	0	0
TOC - Distribution @ Darcy's House	L2624231-1	8/9/2021	0	0
TOC - Distribution @ Carman Golf Club	L2624231-2	8/9/2021	0	0
TOC - Distribution @ Carman Hospital	L2630377-1	8/23/2021	0	0
TOC - Distribution @ Carman Arena	L2630377-2	8/23/2021	0	0
TOC - Distribution @ Rob's House	L2636110-1	9/7/2021	0	0
TOC - Distribution @ High School	L2636110-2	9/7/2021	0	0
TOC - Distribution @ Darcy's House	L2641491-1	9/20/2021	0	0
TOC - Distribution @ Carman Golf Club	L2641491-2	9/20/2021	0	0
TOC - Distribution @ Carman Hospital	L2646895-1	10/4/2021	0	0
TOC - Distribution @ LCL Construction	L2646895-2	10/4/2021	0	0
TOC - Distribution @ Rob's House	L2652159-1	10/18/2021	0	0
TOC - Distribution @ Public Works Shop	L2652159-2	10/18/2021	0	0
TOC - Distribution @ Carman Golf Club	L2657630-1	11/1/2021	0	0
TOC - Distribution @ High School	L2657630-2	11/1/2021	0	0
TOC - Distribution @ Ed's Tire	L2662583-1	11/15/2021	0	0
TOC - Distribution @ Friends Church	L2662583-2	11/15/2021	0	0
TOC - Distribution @ Rob's House	L2667205-1	11/29/2021	0	0
TOC - Distribution @ Res Outgoing	L2667205-2	11/29/2021	0	0
TOC - Distribution @ Carman Arena	L2667205-3	11/29/2021	0	0
TOC - Distribution @ Darcy's House	L2671837-1	12/13/2021	0	0
TOC - Distribution @ Res Outgoing	L2671837-2	12/13/2021	0	0
TOC - Distribution @ Carman Golf Club	L2671837-3	12/13/2021	0	0
TOC - Distribution @ Darcy's House	L2675824-1	12/29/2021	0	0
TOC - Distribution @ Res Outgoing	L2675824-2	12/29/2021	0	0
TOC - Distribution @ Public Works Shop	L2675824-3	12/29/2021	0	0

**Distribution system metals present in drinking water:**

Analyte	Unit	Guide Limit #1	Guide Limit #2	Carman 3 – Distribution Carman Motor Inn
Aluminum (Al)-Total	mg/L	0.1	0.006	0.0090
Antimony (Sb)-Total	mg/L	-	0.01	<0.00010
Arsenic (As)-Total	mg/L	-	1	0.00010
Barium (Ba)-Total	mg/L	-	-	0.0136
Beryllium (Be)-Total	mg/L	-	-	<0.00010

Bismuth (Bi)-Total	mg/L	-	5	<0.000050
Boron (B)-Total	mg/L	-	0.005	0.104
Cadmium (Cd)-Total	mg/L	-	-	<0.0000050
Calcium (Ca)-Total	mg/L	-	-	15.7
Cesium (Cs)-Total	mg/L	-	0.05	<0.000010
Chromium (Cr)-Total	mg/L	-	-	<0.00010
Cobalt (Co)-Total	mg/L	-	-	<0.00010
Copper (Cu)-Total	mg/L	1	-	0.0303
Iron (Fe)-Total	mg/L	0.3	0.01	<0.010
Lead (Pb)-Total	mg/L	-	-	0.000410
Lithium (Li)-Total	mg/L	-	-	0.0225
Magnesium (Mg)-Total	mg/L	-	-	8.06
Manganese (Mn)-Total	mg/L	0.05	-	0.00623
Molybdenum (Mo)-Total	mg/L	-	-	0.000141
Nickel (Ni)-Total	mg/L	-	-	0.00054
Phosphorus (P)-Total	mg/L	-	-	<0.030
Potassium (K)-Total	mg/L	-	-	4.31
Rubidium (Rb)-Total	mg/L	-	0.05	0.00127
Selenium (Se)-Total	mg/L	-	-	0.000087
Silicon (Si)-Total	mg/L	-	-	2.49
Silver (Ag)-Total	mg/L	-	-	<0.000010
Sodium (Na)-Total	mg/L	200	-	16.5
Strontium (Sr)-Total	mg/L	-	-	0.0720
Tellurium (Te)-Total	mg/L	-	-	0.00020
Thallium (Tl)-Total	mg/L	-	-	<0.000010
Thorium (Th)-Total	mg/L	-	-	<0.00010
Tin (Sn)-Total	mg/L	-	-	<0.00010
Titanium (Ti)-Total	mg/L	-	-	<0.00030
Tungsten (W)-Total	mg/L	-	-	<0.00010
Uranium (U)-Total	mg/L	-	0.02	0.000123
Vanadium (V)-Total	mg/L	-	-	<0.00050
Zinc (Zn)-Total	mg/L	5	-	0.0099
Zirconium (Zr)-Total	mg/L	-	-	<0.00020
Sulphur	mg/l			1.10
#1: GCDWQ - Aesthetic Objective				
#2: GCDWQ - Maximum Acceptable Concentrations (MACs)				

### What do we have in place to alert water plant staff to water emergencies?

A dialer alarm is in place that alerts staff of certain mechanical, chemical and structural emergencies that might affect our water system. We are also currently developing an Emergency Response Plan for the Town Of Carman water system. Some of the issues that are to be included in the ERP for the Water Treatment Plant include, water shortage, power outages, chemical spills, flooding, and low or no disinfection residuals in the water distribution system. We have operators available 24 hours a day to respond to these emergencies should they arise.

The new reservoir is alarmed with all of these parameters as well, including, but not limited to: low/high pressure alarms, low/high flow alarms, low chlorine levels, and loss of normal power.

### Were there any major expenses incurred in 2021?

Our new storage reservoir and pump house was completed in spring of 2021 and put into service on June 23rd. The demolition project of our old water treatment plant began in the last week of October 2021 and was completed during the week after Christmas, 2021. Some landscaping is ongoing and will be completed in the spring of 2022.



A water meter replacement program will resume again in the fall of 2022 with approximately 140 residential houses and the majority of commercial meters remaining.

### Did any non-compliance incidents occur in 2021?

There were no non-compliance incidents noted by the Office of Drinking Water in 2021 save for the submission of an Advisory Notification Plan – submitted past due. The Office of Drinking Water 2021 Inspection Letter and Compliance Audit have been attached (pages 10 through 12 of this report).

### Office of Drinking Water Inspection Letter - 2021:



#### Conservation and Climate

Kale Black  
309 -25 Tupper Street North  
Portage La Prairie, MB. R1N 3K1  
204-795-6908  
[Kale.Black@gov.mb.ca](mailto:Kale.Black@gov.mb.ca)

July 16, 2021.

Code: 35.00

Cheryl Young  
Chief Administrative Officer  
Town of Carman  
12 – 2<sup>nd</sup> Avenue, Carman, MB.  
R0G 0J0

Dear Cheryl Young:

This letter is in follow-up to the July 15, 2021 inspection of the Carman public water system. The primary focus of the inspection was to confirm compliance with the terms and conditions of Carman Public Water System Operating Licence PWS-08-102-02.

Darcy Hayward, distribution system operator was in attendance.

#### Water System Overview:

The Town of Carman Reservoir is now supplied treated drinking water solely by the Pembina Valley Water Cooperative via the Stephenfield Regional Water Plant. The newly constructed reservoir in Carman went into service on June 23, 2021. The capacity of the new treated water storage reservoir is 3600 m<sup>3</sup>.

A new Operating Licence for the Town of Carman has been drafted and will be issued shortly. The current Operating License (PWS-08-102-02), for the Town of Carman was based on a conventional water treatment plant and surface water source. However, many of the testing and sampling requirements in the distribution system are still applicable.

#### Required Actions:

- Signage for the bulk water truck-fill is required. A copy of the signage requirements have been sent to Darcy Hayward prior to this letter and are attached.
- Reapply / renew the Water Distribution Facility Classification for the new Carman Reservoir to Donna Garcia, Certification Program Specialist for the Water and Wastewater Facility Operators Regulation. A copy of the application was provided to Darcy Hayward during this inspection. [Donna.Garcia@gov.mb.ca](mailto:Donna.Garcia@gov.mb.ca)

#### Recommended Actions:

- It is recommended that Standard Operating Procedures are developed for reservoir inspection, cleaning and disinfection. The Carman Reservoir has very recently been put into service and it is not expected that cleaning will be required in the near future however, the American Waterworks Association (AWWA) recommends that treated water storage reservoir are cleaned and inspected every 5-10 years, depending on water quality.

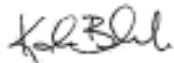
**Important Information:**

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If you have any questions, please do not hesitate to contact me at 204-795-6908.

Sincerely,



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Kale Black  
Senior Regional Drinking Water Officer

cc. Darcy Hayward – Utility Operators  
Donna Garcia - Certification Program Specialist

Att. Signage for Bulk Fill Stations

## Office of Drinking Water Annual Compliance Audit – 2021:



Environment, Climate and Parks

January 29, 2022

### 2021 Annual Compliance Audit

<b>Water System:</b> CARMAN ( STEPHENFIELD REGIONAL ) - PWS	<b>Code:</b> 35.00
<b>Water System Owner:</b> Town of Carman	<b>Address:</b> 12 - 2nd Avenue, Carman, MB R0G0J0
<b>Operating Licence:</b> PWS-21-656	<b>Expiry Date:</b> February 28, 2025
<b>Water System Assessment Due Date:</b> March 1, 2025	
<b>Public Water System Annual Report Due Date:</b> March 31, 2022	<b>Advisory Notification Plan Due Date:</b> May 1, 2022

- 1) This report documents compliance of the Carman ( Stephenfield Regional ) Public Water System for the period from January 1 to December 31, 2021.
- 2) This report provides specific information on the non-compliance incidents identified in the summary below.
- 3) Other than the information provided in this report, the water supplier has complied with The Drinking Water Safety Act, its supporting regulations, and the terms and conditions of the water system's current operating licence.
- 4) This report is based on information submitted by the water supplier, agents of the water supplier, and / or the Province of Manitoba.
- 5) Where non-compliance items are identified, the issues do not necessarily translate into increased public health risk. The Office of Drinking Water uses processes, including boil water advisories, to notify water users of a public health risk.

## Non-compliance with Treatment Standards:

Standard	Location of Standard Non-compliance	Non-compliance Type
Trihalomethanes (THM)	Distribution	Ineffective Treatment Barrier

January 1, 2021 to December 31, 2021

## Non-compliance Incidents:

Date	Incident	Outcome
2021	Failure to submit a Advisory Notification Plan	Non-compliant

If you have any questions, please do not hesitate to contact me at (204) 795-6908.

Sincerely,



Kale Black  
Senior Regional Drinking Water Officer

