

## **Town of Morris Annual Water System Operation Report- 2020**

The Town of Morris, 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 efficient manner while remaining in compliance with the regulatory requirements governing the provision of drinking water.

It is our belief that the public has the right to access information related to the drinking water they consume. To that end the following report has been prepared for the Community of Morris water system.

### **Description of the Water System:**

#### ***Source:***

The Town of Morris purchases water from the Pembina Valley Water Co-op which draws water from the Red River at the Morris Regional Water Treatment Plant. The water enters an intake located near the water plant, is then piped into town through the Pembina Valley Water Co-op's Pipeline which is held in a reservoir which holds 500,000 gallons. This water is then distributed to the end consumers.

#### ***Treatment:***

Water is treated at the Pembina Valley Water Co-op Treatment Plant in Morris. A detailed description of their treatment process can be obtained directly from the PVWC at 204-746-2790 or email: [pvwc@mts.net](mailto:pvwc@mts.net).

Upon entering the reservoir, the treated water is re-chlorinated to ensure that required disinfection residuals are maintained throughout the system. Treated water is then pumped throughout the distribution system to the final consumer.

Water is treated to ensure that safe and pleasing drinking water is supplied to the homes and businesses in Morris. In addition, new Provincial Regulations have set health-based drinking water standards for all public water systems. The Town of Morris is committed to meeting and exceeding the water quality standards set by the province providing the best tap water.

#### ***Distribution:***

The distribution system is a network of underground pipes which delivers treated water from the water treatment facility to the homes and businesses in the Town of Morris. The piping is interconnected to ensure that fresh safe water is continuously supplied.

**Testing:**

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. Water is tested at the treatment facility and in the distribution system at various locations and times. It is a regular requirement that all water test results associated with water safety be submitted to the provincial Office of the Drinking Water for review.

**Bacterial testing:**

Samples of water are submitted to a Laboratory Group for analysis every two weeks from the incoming treated water (PVWC), the outgoing treated water from the reservoir, and a distribution system location. The distribution chlorine residuals are measured at the same time and location as the bacteriological distribution samples. At any time when the free chlorine residual requirement is not met immediate action is taken to adjust amounts of chlorine being added to ensure future compliance.

**Disinfectant tests**

Water samples are retrieved tested and recorded onsite for Chlorine levels each day. There are two chlorine standards, one for leaving the reservoir and one for within the distribution system. The minimum free chlorine standards are 0.5 mg/l leaving the reservoir and 0.1 mg/l throughout the distribution system.

**Trihalomethane (THM) test:**

The standard for trihalomethanes is based on a running average of quarterly samples taken seasonally (February, May, August and November)

**Results of tests**

The following table summarizes all the treated water results for 2020:

Testing Parameter	Standard	PWS Performance	Met Standard
Bacterial	0 TC per 100ML TC & EC	0	Yes
Chlorine (entering)	.05 mg/L	100%	Yes
Chlorine (distribution sys)	.01 mg/L	100%	Yes
THM	.074 mg/L	100%	Yes

**How Public Works Staff is notified in case of emergencies:**

The Public Works staff is notified by telephone of any emergencies or discrepancy with the system. A Public Works Staff member is on call 24 hours/day.

**Water system incidents:**

- Curb stop repairs
  - 39 Veteran's Way
  - 47 Veteran's Way
  - 49 Veteran's Way
  - 1 Oak Bay
  - Riverview Golf Course
- Curb Stop Replacement
  - Burke's Restaurant
  - 2" line North of Hwy 75 bridge
- Main Valve Repair – Trailer Court

**Drinking Water Safety orders on system:**

None

**Boil Water advisories issued:**

- June 16/20 - Oak Bay
  - Curb stop replacement due to contact during directional drilling
  - Rescinded June 20/20
- September 22/20 – Town of Morris
  - Scheduled Water Plant Repairs
  - Rescinded September 26/20
- October 7/20 – Ottawa Ave East
  - 6" Main Line Break
  - Rescinded October 9/20

**Warnings issued or charges - in accordance with Drinking Water Safety Act:**

None

**Major Expenses Incurred:**

New hook up installation

- 246 Ottawa East (EMS Garage)

Water Plant Cleaning

- Cleaning of 3 cells under distribution plant
- Replace floor piping in cell
- Repair/Replace any deteriorated piping

- Install 3 new cell hatch lids
- Replace foot valve on VSP

**Future system expansion:**

- Engineered drawings to be done in 2021
- Distribution plant improvement project scheduled for 2022

**Water Distribution Plant Information and Pump Capacities**

**Water Reservoir Capacity – 500,000 gallons**

**Water Distribution Plant Reservoir Capacity – 135,000 gallons**

**2 - Constant Speed Service Pump – 25 lps @ 460 kPa (396 US gpm)**

**Variable Speed Service Pump – 25 lps @ 460 kPa (396 US gpm)**

**Vertical Turbine Fire Pump – 115 lps @ 460kPa (1822 US gpm)**