



PUBLIC WATER SYSTEM ANNUAL REPORT

2023

Due March 31, 2024

Rural Municipality of Rosser

UTILITY DEPARTMENT

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1.0 DESCRIPTION OF THE WATER SUPPLY, TREATMENT AND MONITORING

The Rural Municipality of Rosser is provided all water by the Cartier Regional Water Co-op (CRWC) from the Headingley Water Treatment Plant located on Gaol Road in the Rural Municipality of Headingley.

Information on the water treatment system, CRWC annual reports, and water chemistry are available at the CRWC website (CRWC.CA)

2.0 DESCRIPTION OF WATER DISTRIBUTION SYSTEM

The Municipal Utilities owns and manages the distribution system and related elements such as fire hydrants. The water distribution system can be viewed as three separate systems:

- a. The rural distribution system consisting of small diameter watermains without fire flow capability.
- b. The Grosse Isle distribution system from the Grosse Isle reservoir.
- c. The CentrePort distribution system from the Rosser Reservoir.

The rural network currently services 100 customers on route to supplying the Grosse Isle reservoir. The water is provided through a series of pipe networks through the Rural Municipality of St. Francois Xavier into the Rural Municipality of Rosser at two metered entry points, St. Francois Xavier Shop (Holiday Road) and Marquette meter chamber (Hwy 248). There is approximately 42.5 kms of pipe in the Rural network.

The reservoirs in Grosse Isle and Rosser CentrePort are owned and operated by CRWC. The reservoirs include water storage, chlorination facilities and high-capacity pumps to provide water and fire flows to the distribution systems.

Grosse Isle Reservoir Pump Station holds roughly 400m³ water and services properties with potable water and fire protection from the 23 installed hydrants throughout the Village site. There are approximately 3.8 km of distribution watermains in Grosse Isle servicing 80 properties which include single family residents, a school, community centre and a few commercial buildings.

The CentrePort area is serviced from the Rosser/CentrePort Reservoir on Klimpke Road (Road 9E). Rosser Reservoir Pump Station holds roughly 7600 m³ water and services 96 water customers with potable water and fire protection from the 233 installed hydrants throughout the CentrePort area. There is roughly 25 kms of pipe in the CentrePort area.

3.0 WATER QUALITY MONITORING

As per the Rural Municipality of Rosser’s Operating Licence, the Municipality is required to sample for total coliform, E. coli, and chlorine residual on a bi-weekly interval from a sample point in the distribution system. Distribution samples are to be taken from the Rosser Rural Distribution System, Grosse Isle Village Distribution System, and the CentrePort Distribution System.

Table 1: Water Quality/Treatment Standards

| Parameter | Quality Standard |
|-------------------------------|--|
| Total Coliform | Less than one total coliform bacteria detectable per 100 mL in all distributed water |
| E. coli | Less than one E. coli bacteria detectable per 100 mL in all distributed water |
| Chlorine Residual | A free chlorine residual of at least 0.1 mg/L at all times at any point in the water distribution system |
| Total Trihalomethanes (THMs) | Less than or equal to 0.10 mg/L as locational annual average of quarterly samples |
| Total Haloacetic acids (HAAs) | Less than or equal to 0.08 mg/L as locational annual average of quarterly samples |
| Lead | Less than or equal to 0.005 mg/L |
| Manganese | Less than or equal to 0.12 mg/L |

Table 2: Monitoring Schedule

| Parameter | Monitoring Requirement |
|--|--|
| Bacteriological (total coliform and E. coli) | Biweekly sampling program with each set of samples consisting of a minimum of three distribution samples. Distribution samples are to be taken from the following locations: <ul style="list-style-type: none"> • One sample from the Rural Municipality of Rosser rural distribution system upstream of the Grosse Isle reservoir • One sample form the Grosse Isle Village distribution system • One sample form the CentrePort distribution system Consecutive sample sets to be separated by at least 12 days |
| Free Chlorine (distribution system) | At the same times and location(s) as bacteriological distribution system sampling |
| Total Chlorine (distribution system) | At the same times and location(s) as bacteriological distribution system sampling |
| Total Metals (distribution system) | One sample every two years at a mid-point in the distribution system |
| Total Trihalomethanes (THMs) (distribution system) | One preserved sample taken on a quarterly basis during February, May, August, and November, every second year at the furthest point in the distribution system beginning 2022 |
| Total Haloacetic Acids | One preserved sample taken on a quarterly basis during February, May, |

| | |
|---------------------------------|--|
| (HAAs) (distribution system) | August, and November, every second year at a mid-point in the distribution system beginning 2022 |
| Lead | As per the instructions of the Drinking Water Officer |
| Manganese | Two distribution samples taken every year |
| Other Parameters | As per the instructions of the Drinking Water Officer |

The following table identifies the results of the testing with respect to bacteriological monitoring and reporting:

2023 Bacteriological Report

| Date Sampled | Sample Point/Identification | Total Coliform | E.Coli | Free CL2 | Total CL2 |
|--------------|-----------------------------|----------------|--------|----------|-----------|
| Jan 10 2023 | 86 Wheatfield | 0 | 0 | 1.39 | 1.45 |
| Jan 10 2023 | GI School | 0 | 0 | 0.74 | 0.84 |
| Jan 10 2023 | Rosser School | 0 | 0 | 1.14 | 1.28 |
| Jan 24 2023 | 86 Bergen Cut -off | 0 | 0 | 1.04 | 1.14 |
| Jan 24 2023 | GI Hall | 0 | 0 | 0.63 | 0.76 |
| Jan 24 2023 | Meadows Hall | 0 | 0 | 0.61 | 0.73 |
| Feb 7 2023 | 127 Mountainview | 0 | 0 | 0.88 | 0.95 |
| Feb 7 2023 | GI School | 0 | 0 | 0.67 | 0.79 |
| Feb 7 2023 | Rosser School | 0 | 0 | 1.22 | 1.38 |
| Feb 21 2023 | 11 Davis | 0 | 0 | 1.22 | 1.29 |
| Feb 21 2023 | 43 Parkland | 0 | 0 | 0.52 | 0.62 |
| Feb 21 2023 | Marquette Co-op | 0 | 0 | 0.7 | 0.76 |
| Mar 7 2023 | 86 Wheatfield | 0 | 0 | 1.39 | 1.48 |
| Mar 7 2023 | GI School | 0 | 0 | 0.72 | 0.85 |
| Mar 7 2023 | Rosser School | 0 | 0 | 1.26 | 1.45 |
| Mar 21 2023 | 330 Eagle | 0 | 0 | 0.53 | 0.55 |
| Mar 21 2023 | 8 Son Cres | 0 | 0 | 0.68 | 0.77 |
| Mar 21 2023 | 22 Railway-Marquette | 0 | 0 | 1.03 | 1.14 |
| Apr 4 2023 | 86 Wheatfield | 0 | 0 | 1.29 | 1.39 |
| Apr 4 2023 | GI School | 0 | 0 | 0.72 | 0.89 |
| Apr 4 2023 | Rosser School | 0 | 0 | 1.27 | 1.48 |
| Apr 18 2023 | 606 Goldenrod | 0 | 0 | 1.25 | 1.16 |
| Apr 18 2023 | 43 Parkland | 0 | 0 | 0.81 | 1 |
| Apr 18 2023 | 66150Rd 1E Rosser | 0 | 0 | 1.21 | 1.34 |
| May 2 2023 | 30 Harvest | 0 | 0 | 0.72 | 0.73 |
| May 2 2023 | GI School | 0 | 0 | 0.76 | 0.84 |
| May 2 2023 | Rosser School | 0 | 0 | 1.2 | 1.28 |

| | | | | | |
|---|-----------------------|-----------|------------|--|------|
| May 16 2023 | 86 Wheatfield | 0 | 0 | 1.28 | 1.34 |
| May 16 2023 | 50 PrarieDog Trail | 0 | 0 | 0.86 | 0.94 |
| May 16 2023 | 0069E Rd 68N | 0 | 0 | 0.62 | 0.68 |
| May 30 2023 | 30 Raynhem | 0 | 0 | 0.97 | 1.07 |
| May 30 2023 | GI School | 0 | 0 | 0.82 | 0.93 |
| May 30 2023 | Rosser School | 59 | 0 | 1.21 | 1.32 |
| Jun 1 Resample Upstream (Rosser School) | | | | Jun 1 Resample Downstream (Rosser Office) | |
| TC=0 | EC=0 | Free=1.17 | Total=1.33 | TC=0 | EC=0 |
| Jun 2 Resample Upstream (Rosser School) | | | | June 2 Resample Downstream (Rosser Office) | |
| TC=0 | EC=0 | Free=1.21 | Total=1.38 | TC=0 | EC=0 |
| June 13 2023 | 86 Wheatfield | 0 | 0 | 1.17 | 1.27 |
| June 13 2023 | 43 Parkland | 0 | 0 | 0.75 | 0.85 |
| June 13 2023 | Marquette Co-op | 0 | 0 | 0.86 | 0.95 |
| June 27 2023 | 3020 Red Fife #300 | 0 | 0 | 0.82 | 1 |
| June 27 2023 | GI School | 0 | 0 | 0.69 | 1.04 |
| June 27 2023 | Rosser School | 0 | 0 | 0.94 | 1.12 |
| Jul 11 2023 | 30 Clover | 0 | 0 | 1.1 | 1.14 |
| Jul 11 2023 | 111 PrarieDog Trail | 0 | 0 | 0.76 | 0.84 |
| Jul 11 2023 | Rosser Shop | 0 | 0 | 1.13 | 1.33 |
| Jul 25 2023 | 450 Lucas | 0 | 0 | 0.94 | 1.01 |
| Jul 25 2023 | 43 Parkland | 0 | 0 | 0.82 | 0.92 |
| Jul 25 2023 | Rosser Shop | 0 | 0 | 0.94 | 1.03 |
| Aug 8 2023 | 5 Roy Roche | 0 | 0 | 0.85 | 0.92 |
| Aug 8 2023 | Prarie Dog Central | 0 | 0 | 0.91 | 1.01 |
| Aug 8 2023 | Marquette Co-op | 0 | 0 | 1.14 | 1.25 |
| Aug 22 2023 | 3149 Red Fife Unit 17 | 0 | 0 | 0.82 | 0.93 |
| Aug 22 2023 | 72022 PR322 | 0 | 0 | 0.78 | 0.93 |
| Aug 22 2023 | Rosser Shop | 0 | 0 | 1.14 | 1.26 |
| Sept 5 2023 | 422 Lucas | 0 | 0 | 0.88 | 0.96 |
| Sept 5 2023 | GI School | 0 | 0 | 0.72 | 0.77 |
| Sept 5 2023 | Rosser School | 0 | 0 | 1.16 | 1.31 |
| Sept 19 2023 | 68 Bergen Cut-off | 0 | 0 | 1.14 | 1.23 |
| Sept 19 2023 | 43 Parkland | 0 | 0 | 0.62 | 0.76 |
| Sept 19 2023 | 20 PR221 | | | | |
| Sept 19 2023 | Marquette | 0 | 0 | 0.97 | 1.11 |
| Oct 3 2023 | 86 Wheatfield | 0 | 0 | 1.05 | 1.13 |

| | | | | | |
|-------------|---------------|---|---|------|------|
| Oct 3 2023 | GI School | 0 | 0 | 0.89 | 0.9 |
| Oct 3 2023 | Rosser CC | 0 | 0 | 0.81 | 0.92 |
| Oct 17 2023 | 390 Eagle | 0 | 0 | 0.7 | 0.76 |
| Oct 17 2023 | GI School | 0 | 0 | 0.62 | 0.71 |
| Oct 17 2023 | Rosser School | 0 | 0 | 0.62 | 0.69 |
| Oct 31 2023 | 11 Davis | 0 | 0 | 0.97 | 0.93 |
| Oct 31 2023 | GI School | 0 | 0 | 0.6 | 0.69 |
| Oct 31 2023 | Rosser Office | 0 | 0 | 0.77 | 0.87 |
| Nov 14 2023 | 11 Bluestem | 0 | 0 | 0.83 | 0.9 |
| Nov 14 2023 | GI School | 0 | 0 | 0.67 | 0.82 |
| Nov 14 2023 | Rosser School | 0 | 0 | 1.12 | 1.27 |
| Nov 28 2023 | 86 Wheatfield | 0 | 0 | 1.12 | 1.19 |
| Nov 28 2023 | 43 Parkland | 0 | 0 | 0.78 | 0.87 |
| Nov 28 2023 | Rosser Shop | 0 | 0 | 1.3 | 1.37 |
| Dec 12 2023 | 86 Wheatfield | 0 | 0 | 1.28 | 1.38 |
| Dec 12 2023 | GI School | 0 | 0 | 0.76 | 0.87 |
| Dec 12 2023 | Rosser School | 0 | 0 | 1.09 | 1.19 |
| Dec 27 2023 | 11 Davis | 0 | 0 | 1.02 | 1.12 |
| Dec 27 2023 | 0008E RD 72N | 0 | 0 | 1 | 1.09 |
| Dec 27 2023 | Rosser Shop | 0 | 0 | 0.91 | 1.05 |

4.0 WATER SYSTEM INCIDENTS AND CORRECTIVE ACTIONS

In 2023, one Water System Incidents had occurred on May 30, 2023. Phoned affected customers. Completed samples on June 1 and 2 upstream and downstream of the positive result location

5.0 DRINKING WATER ORDERS AND CORRECTIVE ACTIONS TAKEN

In 2023, no Drinking Water safety Orders were issued.

6.0 BOIL WATER ADVISORIES ISSUED AND ACTIONS TAKEN IN RESPONSE

In 2023, one Boil Water Advisories was issued for May 31 – June 3 and only affected the Town of Rosser. Phone calls were made to all affected customers. Completed samples on June 1 and 2 upstream and downstream of the positive result location. After both sets of samples came back negative for TC and E.Coli, the boil water advisory was lifted for the Town of Rosser.

7.0 WARNINGS ISSUED, CHARGES LAID IN ACCORDANCE WITH THE DRINKING WATER SAFETY ACT

In 2023, no charges or warnings were issued.

8.0 MAJOR EXPENSES / REPAIRS INCURRED

In 2023, there were 2 water leaks that need to be repaired (540 Oakpoint Hwy and the Farmers Road Line).