



2022 Summary Report

for the

Town of Minto

**PALMERSTON DRINKING WATER SYSTEM**

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for the  
Town of Minto  
PALMERSTON DRINKING WATER SYSTEM**

## **1.0 INTRODUCTION**

### **1.1 Background**

In December 2002, the Safe Drinking Water Act (SDWA) was enacted. Subsequently, on June 1, 2003, under the SDWA, a new *'Drinking-Water Systems Regulation'*, Ontario Regulation 170/03 (O. Reg. 170/03), was enacted. In addition, several supporting regulations and procedures were also enacted to assist with the administration of O. Reg. 170/03. The list of relevant drinking-water legislation is presented in Appendix A.

The SDWA identifies the responsibilities of owners and operating authorities of municipal drinking water systems (SDWA, Sections 11 and 19). Their duties include ensuring that:

- All water provided by the drinking-water system meets prescribed drinking-water quality standards;
- The drinking-water system is operated in accordance with the Act and regulations and is kept in a good state of repair;
- All facilities are appropriately staffed and supervised;
- All sampling, testing and monitoring requirements are complied with;
- All reporting requirements are complied with; and
- Only persons holding valid operator's certificates operate the drinking-water-system.

O. Reg. 170/03 establishes the standard for protection of drinking water. It includes sets of schedules, specific to municipal residential systems that define requirements for:

- Minimum treatment levels;
- Operational checks;
- Chemical and microbiological sampling and testing;
- Adverse results reporting;
- Corrective procedures; and
- Report documentation and retention.

The system's Municipal Drinking Water Licence (MDWL), Drinking Water Works Permit (DWWP) and Permit To Take Water (PTTW) imposes system specific rules and conditions applicable to the standards set out in O. Reg. 170/03.

## 1.2 Objective

This Summary Report for the Palmerston Drinking Water System is being prepared in fulfillment of Schedule 22 of O. Reg. 170/03 and will be given to members of the Municipal Council. This report covers the period from January 1, 2022 to December 31, 2022.

This Summary Report lists any requirements of the Act, the regulations, the PTTW, the MDWL, the DWWP and any order that the system failed to meet, during the period of this report. For any such failure, the measures that were taken to correct the failure are detailed. The report also includes relevant information that will assist the Town of Minto to assess the water work's capability to meet existing and future planned uses of the system.

## 1.3 Description of Drinking Water System

Palmerston is located in the Town of Minto within the northwest corner of Wellington County, along the route of Provincial Hwy. No. 23.

The Palmerston Drinking Water System services a permanent population of approximately 2,940, comprised of approximately 1,140 residential premises, as well as Industrial, Commercial, Institutional premises. The municipal water system is also used for fire protection.

Palmerston is currently serviced by a waterworks that consists of: four drilled bedrock wells, two wellhouses, an elevated 2500 m<sup>3</sup> steel storage tank and a distribution network of watermains, ranging in diameter from 100 mm to 350 mm. There are approximately 102 fire hydrants in the Town of Palmerston. In the event of a prolonged power outage, two portable generators are available for either wellhouse to supply back-up power.

The bedrock wells are equipped with submersible pumps that discharge directly into the William Street Wellhouse (Wells #1 and #2) or the Whites Road Wellhouse (Well #3 and #4). In the wellhouse, the raw water supply is injected with 12% sodium hypochlorite for disinfection and the chemical PW1680 for iron sequestering.

The wells are controlled (*start/stop*) automatically based on elevated storage tank liquid levels and pressures in the distribution system. Each wellhouse is equipped with alarms for high & low free chlorine residuals (*and corresponding lockout of well pumps*), low water level and intrusion. Each wellhouse has a continuous monitoring analyzer for chlorine.

The treated water leaves the wellhouse and enters an underground contact pipe and is discharged into the distribution system after adequate contact time is achieved.

The Palmerston Drinking Water System operates under MDWL 106-103 Issue 4, DWWP 106-203 Issue 4 and PTTW #8341-BZLRR9.

## **2.0 SUMMARY OF UPGRADES**

### **2.1 Upgrades Completed in 2022**

The disinfection treatment system in the Palmerston Drinking Water System meets all of the standards imposed by O. Reg. 170/03 and the MECP's "*Procedures for Disinfection of Drinking Water in Ontario*".

Typically, maintaining the system includes repairs and/or replacement of individual components as necessary. In 2022 \$25,557 was spent on pumphouse/watermain repairs & maintenance, \$1,620 was spent on engineering to create a servicing strategy for future system needs, \$16,510 to Videolog Well # 2, \$7,480 for future well exploration and \$499,530 on Watermain replacement on Whites Road.

The following purchase was also made on equipment that is shared between all of Minto's water systems. \$17,780 on the water meters.

Preventative maintenance measures are being followed to ensure proper operation of the Drinking Water System.

### **2.2 Upgrades Scheduled to be Completed in 2023**

In 2023, the Town of Minto is planning to spend \$50,000.00 on Well Exploration and \$11,000 on engineering for the Main St. Watermain replacement.

The following will also be purchased to be shared within the water department. \$100,000 on vehicle replacement, \$50,000 on the SCADA monitoring system and \$20,000 for water meters. \$182,000 on watermain replacement (location to be determined), \$5,000 on radio upgrades and \$15,000 for engineering of future water system needs.

## **3.0 OPERATION OF THE DRINKING WATER SYSTEM**

### **3.1 Summary of the Quantities and Flow Rates of Water Supplied**

O. Reg. 170/03 stipulates that a summary of the quantities and flow rates of the water supplied from each of Palmerston's wells be included in the Summary Report. Tables 3.1, 3.2, 3.3 and 3.4 provide a summary of quantities and flow rates supplied during 2022 for Wells #1, #2, #3 and #4 respectively, on a monthly basis. Wells #1 and #2 supply the William Street Wellhouse and the two wells alternate duties as primary supply. As such, Wells #1 and #2 are permitted as one and provide standby duty to each other. Well #3 and #4 supply the White's Road Wellhouse and the two wells alternate duties as primary supply.

**Table 3.1**  
**Palmerston Drinking Water System – Well #1**  
**Treated Water Flow, Turbidity, and Disinfectant Residual**  
**January 1, 2022 – December 31, 2022**

Month	Raw Water Flow (Max Flow Rate = 22.8 L/s)			Chlorine Monthly Total (L)	Monthly Averages				Distribution System Disinfectant No. of Samples Collected
	Operator Observed Peak Flow (L/s)	Maximum Day Flow (m <sup>3</sup> /day)	Monthly Total (m <sup>3</sup> )		Treated Water Turbidity		Treated Water Disinfectant Point of Entry		
					No. of Samples Collected	Monthly Average Turbidity (NTU)	No. of Treated Samples Collected	Monthly Average Residual (mg/L)	
January	14.6	348	2,382	46	0	N/A	31	1.31	See Palmerston Well #2 Data
February	14.6	102	1,826	66	0	N/A	28	1.36	
March	14.5	267	2,196	46	4	0.64	31	1.34	
April	14.4	128	2,374	67	4	0.58	30	1.37	
May	14.4	116	2,167	45	5	0.68	31	1.35	
June	14.3	103	1,001	21	5	0.78	16	1.33	
July	14.3	124	2,061	43	4	0.64	31	1.34	
August	14.4	113	2,422	66	5	0.58	31	1.35	
September	14.5	139	2,111	43	4	0.52	30	1.33	
October	14.4	107	2,084	45	5	0.49	31	1.33	
November	14.4	118	2,434	45	4	0.31	30	1.33	
December	14.5	120	2,064	67	4	0.47	31	1.28	
<b>Total</b>			<b>25,122</b>	<b>600</b>	<b>44</b>		<b>351</b>		
<b>Average</b>			<b>2,094</b>			<b>0.57</b>		<b>1.34</b>	
<b>Maximum</b>	<b>14.6</b>	<b>348</b>							

Disinfectant Compound Used: **12% Sodium Hypochlorite**  
 Form of Residual Displayed: **Free**  
 Quantity of Disinfectant Used During 2022: **600 L**  
 Distribution System Minimum Target Residual: **0.2 mg/L**

**Table 3.2**  
**Palmerston Drinking Water System – Well #2**  
**Treated Water Flow, Turbidity, and Disinfectant Residual**  
**January 1, 2022 – December 31, 2022**

	Raw Water Flow (Max Flow Rate = 22.8 L/s)			Chlorine	Monthly Averages				Distribution System Disinfectant
	Operator Observed Peak Flow (L/s)	Maximum Day Flow (m <sup>3</sup> /day)	Monthly Total (m <sup>3</sup> )		Monthly Total (L)	Treated Water Turbidity		Treated Water Disinfectant Point of Entry	
No. of Samples Collected				Monthly Average Turbidity (NTU)		No. of Treated Samples Collected	Monthly Average Residual (mg/L)	No. of Samples Collected	
January	18.3	564	8,175	157	0	N/A	31	1.16	47
February	18.3	475	7,765	134	0	N/A	28	1.23	43
March	18.3	435	9,359	175	4	0.62	31	1.17	47
April	18.2	693	10,588	178	4	0.65	31	1.33	47
May	15.0	734	13,944	224	5	0.54	31	1.34	48
June	13.6	721	15,249	180	4	0.67	23	1.37	50
July	16.1	999	12,053	197	4	0.61	31	1.29	44
August	17.8	396	9,549	246	5	0.52	31	1.35	49
September	17.7	455	8,698	266	4	0.41	30	1.35	48
October	17.9	368	7,771	245	5	0.43	31	1.38	47
November	17.7	770	8,217	154	4	0.36	30	1.37	45
December	18.3	298	7,453	178	4	0.39	31	1.25	47
<b>Total</b>			<b>118,821</b>	<b>2,334</b>	<b>43</b>		<b>359</b>		<b>562</b>
<b>Average</b>	<b>17.3</b>		<b>9,902</b>			<b>0.52</b>		<b>1.30</b>	
<b>Maximum</b>		<b>999</b>							

Disinfectant Compound Used: **12% Sodium Hypochlorite**  
 Form of Residual Displayed: **Free**  
 Quantity of Disinfectant Used During 2022: **2,334 L**  
 Distribution System Minimum Target Residual: **0.2 mg/L**

**Table 3.3**  
**Palmerston Drinking Water System – Well #3**  
**Treated Water Flow, Turbidity, and Disinfectant Residual**  
**January 1, 2022 – December 31, 2022**

Month	Raw Water Flow (Max Flow Rate = 26.7 L/s)			Chlorine  Monthly Total (L)	Monthly Averages				Distribution System Disinfectant  No. of Samples Collected
	Operator Observed Peak Flow (L/s)	Maximum Day Flow (m <sup>3</sup> /day)	Monthly Total (m <sup>3</sup> )		Treated Water Turbidity		Treated Water Disinfectant Point of Entry		
					No. of Samples Collected	Monthly Average Turbidity (NTU)	No. of Treated Samples Collected	Monthly Average Residual (mg/L)	
January	19.8	398	9,876	221	0	N/A	31	1.40	See Palmerston Well #2 Data
February	20.1	482	8,980	219	0	N/A	28	1.33	
March	20.2	647	10,094	264	4	0.65	31	1.29	
April	20.3	614	9,914	238	4	0.68	31	1.35	
May	20.2	513	12,472	284	5	0.71	31	1.39	
June	20.1	1,031	17,070	419	4	0.61	30	1.39	
July	19.8	782	13,565	327	4	0.62	31	1.39	
August	19.1	808	13,966	260	5	0.51	31	1.31	
September	18.6	637	14,216	350	4	0.48	30	1.23	
October	18.6	509	11,106	243	5	0.37	31	1.30	
November	18.5	442	9,736	221	4	0.40	30	1.34	
December	18.6	391	9,163	267	4	0.47	31	1.26	
<b>Total</b>			<b>140,158</b>	<b>3,313</b>	<b>43</b>		<b>366</b>		
<b>Average</b>	<b>19.5</b>		<b>11,680</b>			<b>0.55</b>		<b>1.33</b>	
<b>Maximum</b>		<b>1,031</b>							

Disinfectant Compound Used: **12% Sodium Hypochlorite**  
 Form of Residual Displayed: **Free**  
 Quantity of Disinfectant Used During 2022: **3,313 L**  
 Distribution System Minimum Target Residual: **0.2 mg/L**



**Table 3.4**  
**Palmerston Drinking Water System – Well #4**  
**Treated Water Flow, Turbidity, and Disinfectant Residual**  
**January 1, 2022 – December 31, 2022**

	Raw Water Flow (Max Flow Rate = 26.7 L/s)			Chlorine	Monthly Averages				Distribution System Disinfectant
	Operator Observed Peak Flow (L/s)	Maximum Day Flow (m <sup>3</sup> /day)	Monthly Total (m <sup>3</sup> )		Monthly Total (L)	Treated Water Turbidity		Treated Water Disinfectant Point of Entry	
No. of Samples Collected				Monthly Average Turbidity (NTU)		No. of Treated Samples Collected	Monthly Average Residual (mg/L)	No. of Samples Collected	
January	18.7	131	2,524	See Palmerston Well #3 Data	0	N/A	31	1.45	Palmerston Well #2 Data
February	18.7	125	2,203		0	N/A	28	1.43	
March	18.6	109	2,402		4	0.59	31	1.40	
April	18.4	130	2,334		4	0.54	30	1.32	
May	18.7	118	2,558		5	0.61	31	1.31	
June	18.7	335	3,433		4	0.56	30	1.34	
July	18.6	138	2,390		4	0.64	31	1.43	
August	17.5	133	2,373		5	0.39	30	1.45	
September	16.6	146	1,662		4	0.47	23	1.42	
October	16.1	193	2,246		5	0.35	31	1.48	
November	15.0	116	2,260		4	0.29	30	1.40	
December	16.1	153	2,362		4	0.41	31	1.35	
<b>Total</b>			<b>28,746</b>	<b>3,313</b>	<b>43</b>		<b>357</b>		
<b>Average</b>			<b>2,396</b>			<b>0.48</b>		<b>1.40</b>	
<b>Maximum</b>	<b>18.7</b>	<b>335</b>							

Disinfectant Compound Used: **12% Sodium Hypochlorite**

Form of Residual Displayed: **Free**

Quantity of Disinfectant Used During 2022 for Wells #3 and #4 combined: **3,313 L** \*(Wells #3 and #4 share the same NaOCl storage container)

Distribution System Minimum Target Residual: **0.2 mg/L**

### 3.2 Comparison of Actual Flow and Maximum Allowable Rates

O. Reg. 170/03 stipulates that a summary of the quantities and flow rates of the water supplied from each of Palmerston’s wells be included in the Summary Report and compared against the rated capacity and flow rate for the system. As such, a comparison of the instantaneous peak flow to the PTTW’s rated capacity is included and a comparison of the maximum daily flow to the MDWL’s rated capacity is included in Table 3.5 & Table 3.6. Table 3.5 and Table 3.6 reflect the comparisons between the PTTW and MDWL.

**Table 3.5**  
**Palmerston Drinking Water System**  
**Well #1 & 2 Combined**  
**Treated Water Flow**  
**January 1, 2022 – December 31, 2022**

Month	Treated Water Flow Max Daily Volume – 1,964 m <sup>3</sup> /day Max Flow Rate = 22.83 L/s Well # 1 22.83 L/s Well # 2				Chlorine
	Operator Observed Peak Flow Well #1 (L/s)	Operator Observed Peak Flow Well #2 (L/s)	Maximum Day Flow (m <sup>3</sup> /day)	Monthly Total (m <sup>3</sup> )	Monthly Total (L)
January	14.6	18.7	348	10,198	203
February	14.6	19.0	294	8,485	200
March	14.5	18.9	444	9,673	221
April	14.4	17.7	512	9,984	245
May	14.4	17.4	782	12,078	269
June	14.3	17.9	460	8,603	201
July	14.3	17.9	585	11,161	240
August	14.4	17.8	791	14,349	312
September	14.5	17.6	725	13,776	309
October	14.4	17.6	1,061	13,785	290
November	14.4	17.7	317	9,935	199
December	14.5	17.7	323	9,249	245
<b>Total</b>				<b>131,276</b>	<b>2,934</b>
<b>Average</b>				<b>10,940</b>	
<b>Maximum</b>	<b>14.6</b>	<b>19.0</b>	<b>1,061</b>		

**Table 3.6**  
**Palmerston Drinking Water System**  
**Well #3 & 4 Combined**  
**Treated Water Flow**  
**January 1, 2022 – December 31, 2022**

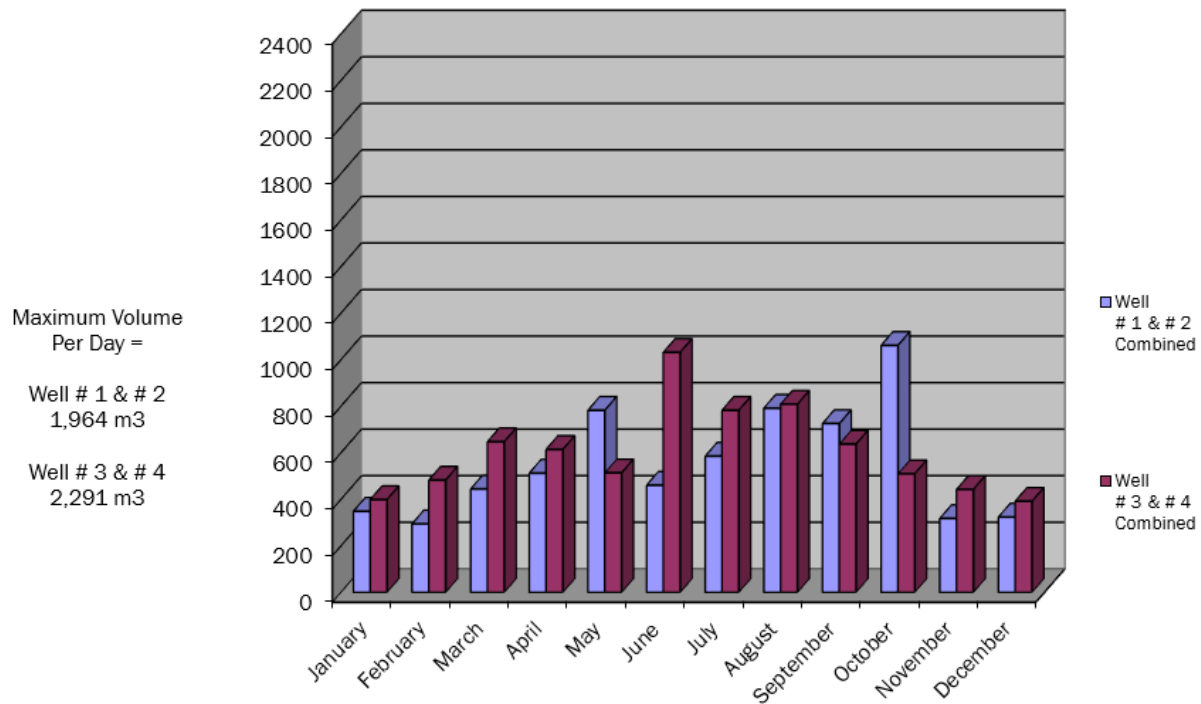
Month	Treated Water Flow Max Daily Volume – 2,291 m <sup>3</sup> /day Max Flow Rate = 26.7 L/s Well # 3 26.7 L/s Well # 4				Chlorine
	Operator Observed Peak Flow Well #3 (L/s)	Operator Observed Peak Flow Well #4 (L/s)	Maximum Day Flow (m <sup>3</sup> /day)	Monthly Total (m <sup>3</sup> )	Monthly Total (L)
January	19.8	18.7	398	12,400	221
February	20.1	18.7	482	11,183	219
March	20.2	18.6	647	12,496	264
April	20.3	18.4	614	12,248	238
May	20.2	18.7	513	15,030	284
June	20.1	18.7	1,031	20,503	419
July	19.8	18.6	782	15,955	327
August	19.1	17.5	808	16,339	260
September	18.6	16.6	637	15,878	350
October	18.6	16.1	509	13,352	243
November	18.5	15.0	442	11,996	221
December	18.6	16.1	391	11,525	267
<b>Total</b>				<b>168,904</b>	<b>3,313</b>
<b>Average</b>				<b>14,075</b>	
<b>Maximum</b>	<b>20.3</b>	<b>18.7</b>	<b>1,031</b>		

**Table 3.7**  
**Comparison of Flow Rates and Flow Capacities**  
**To**  
**Rated Flow Rate (PTTW) and Rated Capacity (MDWL)**

Well Supply	PTTW Max. Flow Rate	Operator Observed Peak Flow	Percent of Maximum Allowable	MDWL Schedule C Maximum Daily Quantity	Maximum Daily Flow	Percent of Maximum Allowable
	L/s	L/s	%	m <sup>3</sup> /day	m <sup>3</sup> /day	%
Well #1	22.8	14.6	64	1,964	348	18
Well #2	22.8	19.0	71	1,964	1,061	54
Well #3	26.7	20.3	76.1	2,291	1,031	45
Well #4	26.7	18.7	70	2,291	335	15

The MDWL stipulates, “The maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the value identified as the rated capacity in Schedule C Table 1.”

**Table 3.8**  
**Maximum Water Usage Per Day by Month**



Short-term peaks, in excess of permitted values, may occur at pump start up, while doing specific maintenance procedures or during emergency demand situations.

The time and duration of any flow exceedance is recorded for each event along with the reason for the occurrence. There were no extended exceedances or exceedances over the daily permitted rate in the Palmerston Drinking Water System.

### 3.3 Raw Water Quality and Required Treatment

The Palmerston Drinking Water System has no naturally occurring chemical parameters that exceed MAC (maximum acceptable concentration) or IMAC (interim maximum acceptable concentration). The Palmerston Drinking Water System uses PW1680 to improve the disinfection process by controlling corrosion in water that is considered very hard and contains high levels of iron.

The William Street Wellhouse (*Well #1 and #2*) and the Whites Road Wellhouse (*Well #3 and #4*) are equipped with continuous monitoring analyzers for measuring free chlorine residual. The chlorine analyzers are equipped with alarms. In the event of an adverse chlorine residual reading, a signal is sent to the SCADA system, which in turn, shuts down the respective well pump. The average monthly turbidity and free chlorine residual measurements for treated water are presented in Tables 3.1, 3.2, 3.3 and 3.4 for Well #1, Well #2, Well # 3 and Well # 4, respectively.

There were no turbidity readings exceeding 1.0 NTU in 2022. The minimum, maximum and average turbidity readings for raw water from each well are presented in Table 3.9.

12% Sodium Hypochlorite is the disinfectant used. Free chlorine residual is monitored continuously at the “*Point of Entry*” (*POE*) into the distribution system. Additional “*grab samples*” are taken daily (*excluding weekends and holidays*) within the distribution system and tested for the free chlorine residual. The minimum, maximum and average values of free chlorine residual at the POE are presented Table 3.9.

The free chlorine residual in the distribution system ranged between 0.71 mg/L and 1.52 mg/L. O. Reg. 170/03, Schedule 1-2 stipulates that the free chlorine residual can never be less than 0.05 mg/L. In addition, O. Reg. 170/03, Schedule 1-4 stipulates that the water treatment equipment must be “*...capable of achieving, at all locations with the distribution system, a free chlorine residual of 0.2 mg/L ...*”. The Palmerston Drinking Water System meets both of these requirements.

**Table 3.9  
 Palmerston Drinking Water System  
 2022 Annual Summary of  
 Raw Water Turbidity and Free Chlorine Residual**

Location	Range	Raw Water Turbidity	Free Chlorine Residual at POE
		NTU	mg/L
Well #1	Minimum	0.19	0.85
	Maximum	0.92	1.63
	Average	0.53	1.34
Well #2	Minimum	0.14	0.87
	Maximum	0.94	1.70
	Average	0.51	1.30
Well #3	Minimum	0.16	0.97
	Maximum	0.85	1.63
	Average	0.52	1.33
Well #4	Minimum	0.07	1.09
	Maximum	0.81	1.79
	Average	0.46	1.40

### 3.4 Summary of Treatment Chemicals Used

The disinfectant chemical used in the Palmerston Drinking Water System is 12% Sodium Hypochlorite. Measurements of free chlorine residual are recorded on a continuous basis. In 2022, 6,247 L of 12% Sodium Hypochlorite was used. The average dosage rates are presented in Table 3.10.

In 2022, 3,307 L of PW1680 was used for the sequestering of iron. Wells #1 and #2 share a common tank of PW1680. The average dosage rates are presented in Table 3.10.

**Table 3.10**  
**Palmerston Drinking Water System**  
**2022 Annual Summary of**  
**Treatment Chemicals Used**

Treatment Chemical	Well	Volume Used	Mass Used	Annual Flow	Dosage Rate
		L	kg	m <sup>3</sup>	mg/L
12 % Sodium Hypochlorite (NaOCl)	Well #1	600	72.0	25,122	2.87
	Well #2	2,334	280.1	106,154	2.64
	Well #3 & 4	3,313	397.6	168,904	2.35
	<b>Total</b>	<b>6,247</b>	<b>749.6</b>	<b>300,180</b>	<b>2.50</b>
PW1680	Well #1 & Well #2	1,009	1,412.6	131,276	10.76
	Well #3 & Well #4	2,298	3,217.2	168,904	19.05
	<b>Total</b>	<b>3,307</b>	<b>4,629.8</b>	<b>300,180</b>	<b>15.42</b>

- Note:**
- Wells #1 and #2 share the same PW1680 storage container; 1,068 L is the combined PW1680 usage for both wells
  - Wells #3 and #4 share the same PW1680 storage container; 1,982 L is the combined PW1680 usage for both wells
  - 12% Sodium Hypochlorite = 120,000 mg/L = 120 kg/m<sup>3</sup>
  - PW1680 has a specific gravity = 1.4

## 4.0 COMPLIANCE

### 4.1 Assessment of Compliance

The objective of the Summary Report is to list any requirements of the Act, the regulations, the PTTW, the MDWL, the DWWP and any MECP Order that the system failed to meet from January 1, 2022 to December 31, 2022, and the corresponding corrective measure(s) taken. Compliance was assessed as follows:

- MECP Completed Inspection of the Palmerston drinking water system completed August 19, 2022, Final inspection rating score 100%
- There were **no MECP Orders** issued to the Palmerston Drinking Water System in 2022.
- The MDWL imposes the specific rules and conditions governing the standards set out in O. Reg. 170/03. It is an important instrument in defining the requirements of compliance of a Drinking Water System.

- O. Reg. 170/03 establishes the standard for protection of drinking water; specifically, through 12 schedules that municipal residential drinking systems must follow to meet the requirements of the regulation.
- The SDWA identifies the responsibilities of owners and operating authorities of municipal drinking water systems. It places a recommended statutory standard of care on those who have oversight of municipal drinking-water systems. In essence, the standard of care has two themes: be informed and exercise diligent oversight.
- Adverse Test Results reported under the Safe Drinking Water Act, 18(1) or O Reg.170/03, Schedule 16-4
  - a) Adverse Water Quality Incidents (AWQI) refer to any unusual test results that do not meet provincial water quality standard or situation where the disinfection of the drinking water may be compromised.

**Table 4.1  
 Adverse Water Quality Incidents**

AWQI #	Date	Parameter	Result	Corrective Action
158534	May 24, 2022	Sodium	23.8 mg/L	Resample Well #1 on June 1, 2022
158535	May 24, 2022	Sodium	25.3 mg/L	Resample Well #2 on June 1, 2022
158536	May 24, 2022	Sodium	21.6 mg/L	Resample Well #3 on June 1, 2022

During our required Sodium & Fluoride (once every 60 months) treated water sampling, Minto received adverse results for Sodium (wells #1, #2 & #3). Minto operations staff re-sampled for the 3 adverse samples on June 1<sup>st</sup> 2022. The re-sample results were 23.5 mg/L for Sodium @ well #1, 24.5 mg/L for Sodium @ well #2 and 19.9 mg/L for Sodium @ well #3. A notice was posted to the Town of Minto’s website detailing the elevated Sodium levels per the Health Units direction. The AWQI’s were closed and no further action was required.

The provincial MAC (maximum acceptable concentration) standard for Sodium is 20 mg/L. If a sample result exceeds 20 mg/L, then a re-sample must be collected from the same location as the adverse sample was collected. The MECP and Public Health Unit must be notified of both sample results. If the re-sample still exceeds 20 mg/L, then the Public Health Unit requires the Drinking Water System Owner to post a notice of the elevated Sodium levels on their website for the public’s information.

#### **4.2 Summary of Compliance**


The Town of Minto works diligently to maintain compliance, with all of the requirements of the SDWA, O. Reg. 170/03, as well as the Palmerston Water Work’s MDWL 106-103 Issue 4, DWWP 106-203 Issue 4, and PTTW #8341-BZLRR9.

Table 4.2 identifies any non-compliance related to the following: SDWA, O. Reg. 170/03, the MDWL, the DWWP and the PTTW.

**Table 4.2**  
**Palmerston Drinking Water System**  
**Requirements the System Failed to Meet**

<b>Compliance With</b>	<b>Description of Item the System Failed to Meet</b>	<b>Correction of This Situation How/When</b>
<b>MDWL # 106-103 Issue 4</b>	<i>Palmerston Drinking Water System is in compliance with all of the requirements of the MDWL</i>	
<b>DWWP # 106-203 Issue 4</b>	<i>Palmerston Drinking Water System is in compliance with all of the requirements of the DWWP.</i>	
<b>O. Reg. 170/03</b>	<i>Palmerston Drinking Water System is in compliance with all of the requirements of O. Reg. 170/03.</i>	
<b>SDWA</b>	<i>Palmerston Drinking Water System is in compliance with all of the requirements of the SDWA.</i>	
<b>PTTW #8341-BZLRR9</b>	<i>Palmerston Drinking Water System is in compliance with all of the requirements of the PTTW</i>	

Dated this 14<sup>th</sup> day of March 2023



Todd Rogers  
Water Services Manager