



## **2011 SUMMARY REPORT**

**for the**

**TOWN OF MINTO  
PALMERSTON DRINKING WATER SYSTEM**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	Background.....	1
1.2	Objective .....	2
1.3	Description of Drinking Water System.....	2
<b>2.0</b>	<b>SUMMARY OF UPGRADES</b> .....	<b>3</b>
2.1	Upgrades Completed in 2011.....	3
2.2	Upgrades Scheduled to be Completed in 2012.....	3
<b>3.0</b>	<b>OPERATION OF THE DRINKING WATER SYSTEM</b> .....	<b>3</b>
3.1	Summary of the Quantities and Flow Rates of Water Supplied .....	3
3.2	Comparison of Actual Flow and Maximum Allowable Rates .....	7
3.3	Raw Water Quality and Required Treatment.....	7
3.4	Summary of Treatment Chemicals Used .....	9
<b>4.0</b>	<b>COMPLIANCE</b> .....	<b>9</b>
4.1	Assessment of Compliance .....	9
4.2	Summary of Compliance.....	10

## LIST OF TABLES

Table 3.1	Palmerston Drinking Water System – Well #1.....	4
Table 3.2	Palmerston Drinking Water System – Well #2.....	5
Table 3.3	Palmerston Drinking Water System – Well #3.....	6
Table 3.4	Palmerston Drinking Water System – Well # 1 & 3 Combined.....	7
Table 3.5	Comparison of Flow Rates and Flow Capacities .....	8
Table 3.6	Comparison of Flow Rates (PTTW).....	8
Table 3.7	Comparison of Flow Capacities (PTTW) .....	8
Table 3.8	2011 Maximum Water Usage Per Day by Month .....	9
Table 3.9	2011 Annual Summary of Raw Water Turbidity.....	10
Table 3.10	2011 Annual Summary of Treatment Chemicals Used .....	11
Table 4.1	Requirement the System Failed to Meet.....	13

**2011 Summary Report  
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 Certificate of Approval (C. of A.) imposes system specific rules and conditions applicable to the standards set out in O. Reg. 170/03. July 31, 2011 the C of A was revoked and adherence to the Municipal Drinking Water Licence (MDWL) and Drinking Water Works Permit (DWWP) is required.

## 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. It covers the period from January 1, 2011 to December 31, 2011.

This Summary Report lists any requirements of the Act, the regulations, the C. of A., MDWL, 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 2,579, comprised of approximately 910 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: three 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 250 mm. There are approximately 102 fire hydrants in the Town of Palmerston. In the event of a prolonged power outage, a portable generator is available to 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). 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 chlorination system failure (*and corresponding lockout of well pumps*), low water level and intrusion. Each wellhouse has continuous monitoring analyzers for both chlorine and turbidity, but the turbidity analyzer is not alarmed.

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 C. of A. #8049-632PRC until July 31, 2011 at which time operations are regulated by MDWL 106-103 and DWWP 106-203 and PTTW #3748-6WGGPD until June 15<sup>th</sup> and PTTW #8374-8HSPD5 starting June 16<sup>th</sup>.

## **2.0 SUMMARY OF UPGRADES**

### **2.1 Upgrades Completed in 2011**

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

Typically, maintaining the system includes repairs and/or replacement of individual components as necessary. \$1,400.00 was spent on a portable generator, \$850.00 on a metal detector and \$6,500.00 on computer equipment and upgrades between all 4 water systems.

In Palmerston, approximately \$10,000.00 on the new well # 4, \$42,500.00 on water tower upgrades and maintenance and \$30,000.00 was spent installing watermain.

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

### **2.2 Upgrades Scheduled to be Completed in 2012**

In 2012, the Town of Minto is planning to connect the new well, drilled in 2010 to the drinking water system at an estimated cost of \$300,000.00. Valve replacements are also planned at an estimated cost of \$9,000.00.

## **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 and 3.3 provide a summary of quantities and flow rates supplied during 2011 for Wells #1, #2 and #3 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 supplies the White's Road Wellhouse.

**Table 3.1  
 Palmerston Drinking Water System – Well #1  
 Treated Water Flow, Turbidity, and Disinfectant Residual  
 January 1, 2011 – December 31, 2011**

Month	Treated Water Flow (Max Flow Rate = 22.8 L/s)			Chlorine Monthly Total (L)	Monthly Averages			Distribution System Disinfectant		
	Instantaneous Peak Flow (L/s)	Maximum Day Flow (m <sup>3</sup> /day)	Monthly Total (m <sup>3</sup> )		Treated Water Turbidity	Treated Water Disinfectant		No. of Dis. Samples Collected	No. of Samples with Detectable Residual	
					No. of Samples Collected	Daily Average Turbidity	No. of Treated Samples Collected	Average Residual (mg/L)		
January	16.2	116	1963	44	12	0.52	29	1.52	See Palmerston Well #2 Data	
February	16.2	106	1731	5	13	0.59	28	1.46		
March	16.0	82	1788	40	13	0.54	31	1.47		
April	16.0	319	2283	20	14	0.53	29	1.43		
May	16.0	143	1859	60	13	0.58	32	1.58		
June	15.9	408	2663	40	11	0.71	28	1.43		
July	15.7	328	2262	40	10	0.52	31	1.44		
August	15.8	92	1737	40	5	0.71	30	1.48		
September	15.8	77	1569	40	13	0.76	29	1.30		
October	15.8	110	1805	34	10	0.76	31	1.26		
November	15.3	104	1766	28	15	0.69	30	1.33		
December	15.0	115	1707	40	13	0.5	31	1.48		
<b>Total</b>			<b>23,133</b>	<b>431</b>	<b>142</b>		<b>359</b>			
<b>Average</b>			<b>1,928</b>			<b>0.62</b>		<b>1.43</b>		
<b>Maximum</b>	<b>16.2</b>	<b>408</b>								

\* **Note:** The C. of A. stipulates that the rated capacity for the maximum flow rates from the wellhouse (Wells #1 & #2) is 22.8 L/s.

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

Form of Residual Displayed: **Free**

Quantity of Disinfectant Used During 2011: **431 L**

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

**Table 3.2**  
**Palmerston Drinking Water System - Well #2**  
**Treated Water Flow, Turbidity, and Disinfectant Residual**  
**January 1, 2011 - December 31, 2011**

	Treated Water Flow (Max Flow Rate = 22.8 L/s)			Chlorine	Monthly Averages				Distribution System Disinfectant	
	Instantaneous 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		No. of Dis. Samples Collected
No. of Samples Collected				Daily Average Turbidity		No. of Treated Samples Collected	Average Residual (mg/L)			
January	20.8	417	8,199	152	12	0.68	31	1.44	46	46
February	20.1	706	7,827	112	10	0.62	28	1.40	43	43
March	19.8	807	9,294	201	12	0.56	31	1.36	47	47
April	19.9	619	7,899	151	14	0.54	30	1.33	44	44
May	19.9	803	9,508	196	14	0.68	32	1.32	48	48
June	18.5	1601	10,894	221	11	0.58	28	1.30	49	49
July	17.3	424	9,106	171	9	0.50	32	1.21	45	45
August	17.6	526	8,785	169	6	0.62	31	1.13	48	48
September	19.9	344	8,082	143	13	0.74	29	0.97	48	48
October	19.9	458	9,677	156	9	0.76	31	1.12	48	48
November	20.0	529	9,917	207	15	0.7	30	1.29	47	47
December	20.3	608	10,007	193	13	0.54	31	1.21	50	50
<b>Total</b>			<b>109,195</b>	<b>2,072</b>	<b>138</b>		<b>364</b>		<b>563</b>	<b>563</b>
<b>Average</b>	<b>19.5</b>		<b>9,100</b>			<b>0.63</b>		<b>1.26</b>		
<b>Maximum</b>		<b>1,601</b>								

\* Note: The C. of A. stipulates that the rated capacity for the maximum flow rates from the wellhouse (Wells #1 & #2) is 22.8 L/s.

Disinfectant Compound Used: 12% Sodium Hypochlorite  
 Form of Residual Displayed: Free  
 Quantity of Disinfectant Used During 2011: 2,072 L  
 Distribution System Target Residual: 0.2 mg/L

**Table 3.3**  
**Palmerston Drinking Water System – Well #3**  
**Treated Water Flow, Turbidity, and Disinfectant Residual**  
**January 1, 2011 – December 31, 2011**

	Treated Water Flow (Max Flow Rate = 26.7 L/s)			Chlorine	Monthly Averages				Distribution System Disinfectant	
	Instantaneous 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		No. of Dis. Samples Collected
No. of Samples Collected				Daily Average Turbidity		No. of Treated Samples Collected	Average Residual (mg/L)			
January	20.3	899	16,620	236	12	0.49	31	1.42		
February	20.2	848	14,467	149	9	0.46	29	1.41		
March	20.3	873	16,281	306	11	0.47	31	1.32		
April	20.3	685	14,794	236	14	0.43	30	1.34		
May	20.4	1097	17,379	280	14	0.68	32	1.36		
June	20.4	1699	18,575	328	11	0.63	30	1.36		
July	20.4	806	19,422	275	8	0.61	33	1.08		
August	20.2	1065	17,851	313	6	0.65	30	1.20		
September	20.2	878	16,642	302	12	0.75	29	1.26		
October	20.3	710	16,944	261	9	0.72	30	1.31		
November	20.3	885	16,231	260	16	0.54	30	1.36		
December	21.2	626	15,291	305	13	0.48	31	1.34		
<b>Total</b>			<b>200,497</b>	<b>3,251</b>	<b>135</b>		<b>366</b>			
<b>Average</b>	<b>20.4</b>		<b>16,708</b>			<b>0.58</b>		<b>1.31</b>		
<b>Maximum</b>		<b>1,699</b>								

\* Note: The C. of A. stipulates that the rated capacity for the maximum flow rates from the wellhouse (Wells #3) is 26.7 L/s.

Disinfectant Compound Used: 12% Sodium Hypochlorite  
 Form of Residual Displayed: Free  
 Quantity of Disinfectant Used During 2011: 3,251 L  
 Distribution System Target Residual: 0.2 mg/L



**Table 3.4**  
**Palmerston Drinking Water System - Well #1 & 3 Combined**  
**Treated Water Flow**  
**January 1, 2011 - December 31, 2011**

Month	Treated Water Flow (Max Daily Volume = 1309 m <sup>3</sup> /d) (Max Flow Rate = 15.2 L/s)			Chlorine
	Instantaneous Peak flow	Maximum Day Flow	Monthly Total	Monthly Total
	(L/s)	(m <sup>3</sup> /day)	(m <sup>3</sup> )	(l)
January	37.0	417	10162	196
February	36.2	706	9558	117
March	35.8	807	11082	241
April	36.0	619	10182	171
May	36.0	803	11367	256
June	34.4	1601	13557	261
July	33.1	424	11368	211
August	33.4	526	10522	209
September	35.7	344	9651	183
October	35.8	458	11482	190
November	35.3	529	11683	235
December	35.3	608	11714	233
<b>Total</b>			<b>132,328</b>	<b>2503</b>
<b>Average</b>			<b>11,027</b>	
<b>Maximum</b>	<b>37.0</b>	<b>1,601</b>		

### 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

C. of A.’s rated capacity is included and a comparison of the maximum daily flow to the PTTW’s rated capacity is included in Table 3.5. Table 3.4 reflects the comparisons between the MDWL and PTTW as of July 31, 2011. However, this table includes data from January 1<sup>st</sup> to December 31<sup>st</sup>, 2011.

**Table 3.5**  
**Comparison of Flow Rates and Flow Capacities**  
**To**  
**Rated Flow Rate (C. of A.) and Rated Capacity (PTTW)**

Well Supply	C. of A. Max. Flow Rate	Maximum Instantaneous Peak Flow	Percent of Maximum Allowable	PTTW 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	16.2	71	1,964	408	21
Well #2	22.8	20.8	91	1,964	1,601	82
Well #3	26.7	21.2	79	2,291	1,699	74

The C. of A. stipulates, “*The drinking-water system shall not be operated to exceed the rated capacity for the maximum flow rates into the treatment system*”. The wells have fixed speed pumps that typically discharge at constant rate equal to the average rate identified in the PTTW.

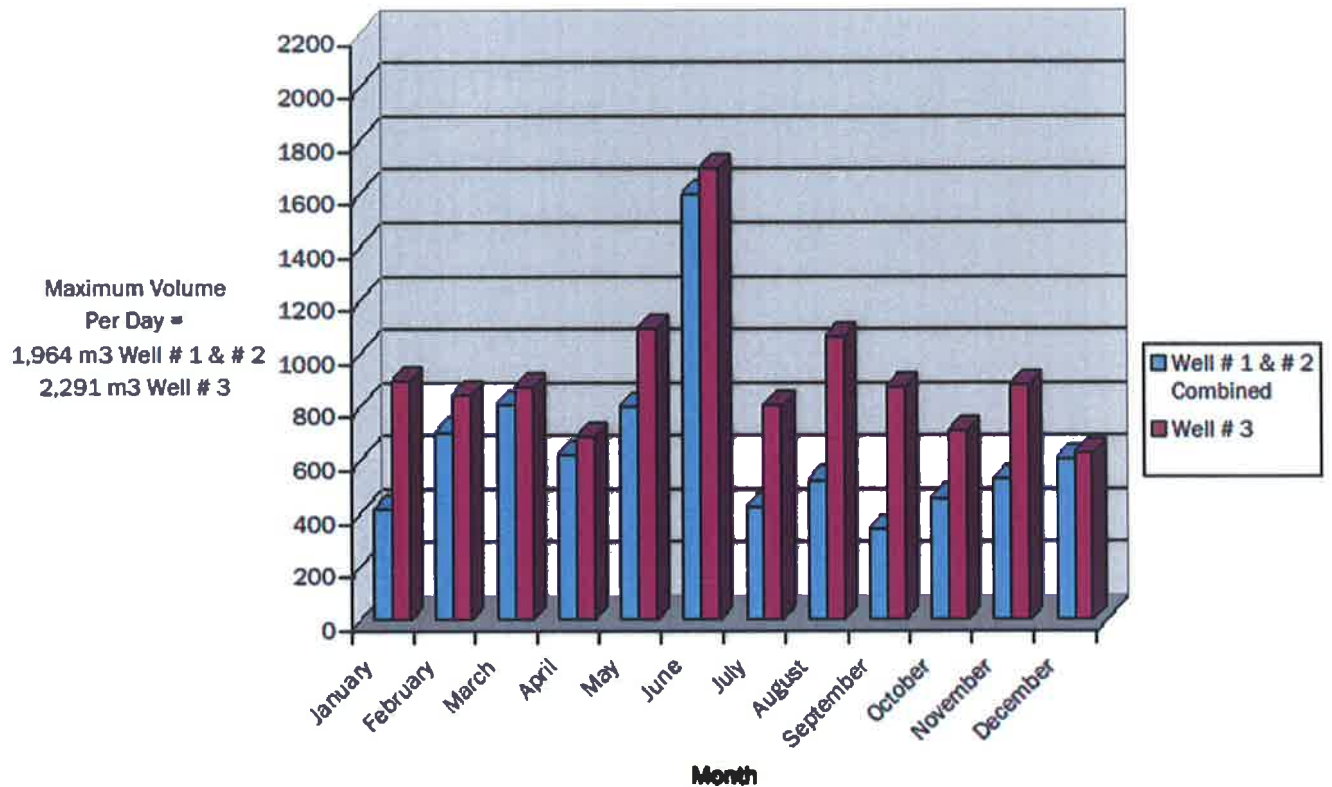
**Table 3.6**  
**Comparison of Flow Rates To Rated Flow Rate (PTTW)**

Well Supply	PTTW Max. Flow Rate	Maximum Instantaneous Peak Flow	Percent of Maximum Allowable
	L/s	L/s	%
Well #1	22.83	16.2	71
Well #2	22.83	20.8	91
Well #3	26.66	21.2	79

**Table 3.7**  
**Comparison of Flow Capacities To Rated Capacity (MDWL)**

Well Supply	PTTW Maximum	Maximum Daily Flow	Percent of Maximum Allowable
	m <sup>3</sup> /day	m <sup>3</sup> /day	%
Well #1 & 2	1,964	1,601	82
Well #3	2,291	1,699	74

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



The C of A is valid until July 31, 2011. As of August 1, 2011 the Municipal Drinking Water Licence does not list a flow rate, therefore the flow rate is based on the PTTW.

Short-term peaks, in excess of permitted values, may occur at pump start up, while doing specific maintenance procedures or during emergency demand situations. An occurrence of this nature is not considered an exceedance.

The time and duration of any flow exceedance is recorded for each event along with the reason for the occurrence. There were no exceedances of the allowable flow rates 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 or IMAC limits. However, the Palmerston Drinking Water System uses PW1680 for sequestering, to improve the disinfection process by reducing the level of naturally occurring iron in the water.

The William Street Wellhouse (*Well #1 and #2*) and the Whites Road Wellhouse (*Well #3*) 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 and 3.3 for Well #1, Well #2 and Well # 3, respectively.

There were no high turbidity readings ( $>1.0$  NTU) experienced in 2011. 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 3.5. Also included in Table 3.5 is the range of free chlorine residual within the distribution system.

The free chlorine residual in the distribution system ranged between 0.66 mg/L and 1.73 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  
 2011 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	0.31	0.95
	Maximum	0.96	1.98
	Average	0.63	1.43
Well #2	Minimum	0.29	0.71
	Maximum	0.93	1.75
	Average	0.58	1.26
Well #3	Minimum	0.28	0.57
	Maximum	0.81	2.39
	Average	0.52	1.31

**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 2011, 2,503 L of 12% Sodium Hypochlorite was used. The average dosage rates are presented in Table 3.10.

In 2011, 5,390 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**  
**2011 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	Well #1	431	51.7	23,133	2.24
	Well # 2	2,072	248.6	109,195	2.28
	Well # 3	3,251	390.1	200,497	1.95
	Total	5,754	690.5	332,825	2.07
PW1680	Well #1 & Well #2	2,364	3,286.0	132,328	24.83
	Well # 3	3,026	4,206.1	200,497	20.98
	Total	5,390	7,492.1	332,825	22.51

- Note:
- Wells #1 and #2 share the same PW1680 storage container; 2,872 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

C. of A. and any MOE Order that the system failed to meet from January 1, 2011 to December 31, 2011, and the corresponding corrective measure(s) taken. Compliance was assessed as follows:

- There were no MOE Orders issued to the Palmerston Drinking Water System in 2011.
- The C. of A. 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. A detailed 'checklist' was developed, based on the terms and conditions of C. of A. #8049-632PRC for the Palmerston Drinking Water System. From this checklist, the terms and conditions of the C. of A. were summarized as either in compliance or not in compliance. A copy of both the summary and the checklist are included in Appendix B.

- 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. Therefore a detailed 'checklist' was developed for each of the relevant schedules for municipal residential systems. This checklist was then summarized into requirements that have been met, and those that have not been met, for each of the schedules. A copy of both the summary and the checklist are included in Appendix C.
- 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.

#### 4.2 Summary of Compliance

To the best of our knowledge and ability we are in, or diligently working towards, compliance, with all of the requirements of the SDWA, O. Reg. 170/03, as well as the Palmerston Water Work's C. of A. #8049-632PRC and PTTW #3748-6WGGPD until June 15<sup>th</sup> and PTTW #8374-8HSPD5 starting June 16<sup>th</sup>. Every attempt has been made to ensure this document is an accurate representation of how the Drinking Water System is operated. On July 31, 2011 the C of A was replaced with the Municipal Drinking Water Licence 106-103 and Drinking Water Works Permit 106-203.

To the best of our knowledge, Table 4.1 identifies all of the requirements of the SDWA, the regulations, and the C. of A. in which the Palmerston Drinking Water System failed to meet from January 1, 2011 to December 31, 2011.

**Table 4.1  
 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>C. of A. - #8049-63PRC</b>	<i>Palmerston Drinking Water System is in compliance with all of the requirements of the C. of A.</i>	
<b>MDWL # 106-103</b> As of July 29, 2011	<i>Palmerston Drinking Water System is in compliance with all of the requirements of the MDWL</i>	
<b>DWWP # 106-203</b> As of July 29, 2011	<i>Palmerston Drinking Water System is in compliance with all of the requirements of the DWWP.</i>	

Compliance With	Description of Item the System Failed to Meet	Correction of This Situation How/When
O. Reg. 170/03	<p>On June 6, 2011, a sample taken from Well #2 had a total coliforms result of 1 cfu/100mL. Schedule 17 of O. Reg. 170/03 states that owner must "resample and test" as soon as reasonable possible. The Town of Minto did sample at the adverse location as required (as well as sampling the following day, which is not required by the regulation), however, the definition of "resample and test" with respect to a microbiological parameter in O. Reg.170/03 is defined such that a set of water samples must be taken. A sample must be taken at the same location as the adverse test result, a location a significant distance upstream of the adverse location and one a significant distance downstream from the adverse location. Since the adverse sample was from the source, only a sample at the adverse location and a location downstream was required. The downstream sample was not taken when the Town of Minto resampled. Since this incident, the Town of Minto has reviewed their adverse sampling procedure to ensure it meets the requirements of the O. Reg. 170/03 and all of the operators have been retrained on this procedure. An adverse microbiological incident occurred in the Palmerston Distribution System on September 14th, 2011 and all corrective actions were followed as required.</p>	<p>No further action is required at this time.</p>
SDWA	<p><b><i>Palmerston Drinking Water System is in compliance with all of the requirements of the SDWA.</i></b></p>	

Dated this 20<sup>th</sup> day of March 2012.

  
 Brian Hansen  
 Public Works Director