



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

---

## **2008 Annual Compliance/Summary Report**

**for the**

### **Larder Lake Well Supply**



Prepared by the Ontario Clean Water Agency  
on behalf of the Corporation of the Town of Larder Lake

**Part III Form 2  
Section 11. ANNUAL REPORT.**

<b>Drinking-Water System Name:</b>	<b>LARDER LAKE GUDI WELL SUPPLY</b>
<b>Drinking-Water System No.:</b>	<b>220000326</b>
<b>Drinking-Water System Owner:</b>	Larder Lake, The Corporation of the Town of
<b>Drinking-Water System Category:</b>	Large Municipal, Residential System
<b>Period being reported:</b>	January 1, 2008 to December 31, 2008

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people?</b> Yes [ ]      No <b>X</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet?</b> Yes [ ]      No <b>X</b></p> <p><b>Location where Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Larder Lake Municipal Office 13 Godfrey Street Larder Lake ON P0K 1L0</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b> <input style="width: 100px; height: 20px;" type="text"/></p> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve?</b> Yes [ ] No [ ]</p> <p><b>Number of Interested Authorities you report to:</b> <input style="width: 100px; height: 20px;" type="text"/></p> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?</b> Yes [ ] No [ ]</p>
--	---

**Drinking-Water Systems, which receive all of their drinking water from your system:**

Community of Larder Lake

**Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?**

Yes  No

**Indicate how you notified system users that your annual report is available, and is free of charge.**

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library

**X Public access/notice via other method - Flyer and Local News Letter**

### Description of the Drinking-Water System

The Larder Lake water treatment plant is located at 1 Tenth Avenue in the Town of Larder Lake. It supplies water to a population of approximately 900 people. The water supply has been classified as a GUDI (Groundwater Under the Direct Influence) system with Effective in situ Filtration and is located near the Town's ski hill on Ski Hill Road, 60 meters south of Glendalough Lake.

The water treatment plant consists of two well pumphouses and a water treatment building. A 500 m<sup>3</sup> reinforced concrete water reservoir is located partially beneath the treatment building and is used to both store treated water as well as provide a minimum chlorine contact time of one half (0.5) log Giardia removal and two (2) log virus removal. Each pumphouse has a vertical turbine pump with a rating of 11 L/s at 38 m. Water is pumped from one of the wells to the water treatment building.

Raw water from the pumphouses is disinfected with the use of an Ultraviolet (UV) Disinfection System. This system consists of nine ultraviolet disinfection units (seven duty and two standby), which run in parallel and deliver a minimum dose of 40 mJ/cm<sup>2</sup>. Also included in the system is a control panel supplying automatic control, as well as an alarm mechanism.

Treated water is disinfected with chlorination (12% sodium hypochlorite solution). Chlorination is achieved at two points designated as 'primary' and 'secondary'. Primary chlorination is at the reservoir inlet and secondary chlorination at the treated water discharge header. Currently, only primary disinfection is in use. Corrosion control equipment is also available on-site, but is not in use.

The plant is equipped with four hydro pneumatic tanks each with a volume of 1200 L suitable for working pressures of 550 kPa to 100 kPa.

## Drinking-Water Systems Regulation O. Reg. 170/03

The plant also has an emergency power system in the form of a diesel power generator rated at 125 kW. The generator has a 1360 L fuel tank, battery charger, and a control unit.

**A list of all water treatment chemicals used over this reporting period**

Sodium Hypochlorite – Disinfection

**Were any significant expenses incurred to?**

- Install required equipment
- Repair required equipment
- Replace required equipment

**Describe**

No major equipment installations, repairs or replacements occurred as all routine maintenance functions were accomplished through OCWA's comprehensive Workplace Management computerized work order system.

**Details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre?**

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
February 2	Loss of Pressure	0	psi	<p>Power failure at the water treatment plant triggered the operation of the generator set which failed to run the high lift pumps due to a robotic arm malfunction. After the power was manually switched to the pumps pressure was restored in the distribution system.</p> <p>The MOE Spills Action Center and local Health Unit were notified. The distribution system was flushed, chlorine residuals were tested and bacteriological samples were collected. All results were well within acceptable limits.</p>	<p>February 2</p> <p>(AWQI #777706 resolved on February 6, 2008)</p>

## Drinking-Water Systems Regulation O. Reg. 170/03

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
February 30	Loss of Pressure	0	psi	<p>A faulty Uninterrupted Power Source (UPS) caused a loss of power to the Program Logic Controller (PLC). This caused the high lift pumps to fail which in turn caused a loss of pressure in the distribution system. The UPS was bypassed and power was restored to the PLC and the plant resumed normal operations.</p> <p>The distribution system was flushed, chlorine residuals were tested and bacteriological samples were collected. All results were well within acceptable limits.</p> <p>The MOE Spills Action Center and local Health Unit were notified of the incident and the corrective actions taken to remedy the situation.</p> <p>On February 4<sup>th</sup>, the faulty UPS was replaced.</p>	February 3  (AWQI #77710 resolved on February 6, 2008)
August 8	Total Coliform	3	cfu/mL	<p>Three total coliforms were detected in a sample collected from the point of entry on August 6<sup>th</sup>. The local Health Unit and MOE Spill's Action Center were notified.</p> <p>Resamples were collected upstream (raw water), downstream and at the site of the adverse result on August 8<sup>th</sup>. All results indicated good quality water having no detectable total coliforms, <i>E. coli</i> or background bacteria.</p>	August 8  (AWQI #82395 resolved on August 13, 2008)
August 13	Total Coliform	1	cfu/mL	<p><i>August 13</i> – One total coliform (TC) was detected in a sample collected at the Town Hall (AWQI 82600)</p> <p>Area was flushed and resamples were taken at: Town Hall, Country Inn Restaurant, and Gas Station</p>	August 13  (AWQI #82600, 82710, 82821, 83102 resolved on August 29, 2008)

# Drinking-Water Systems Regulation O. Reg. 170/03

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
				<p><i>August 14</i> - 9 TC detected at a different location in the distribution system at the Country Inn Restaurant (AWQI 82710)</p> <p>Area was flushed, chlorine increased, sample collected at: Hydrant outside of Town Hall (Other distribution sites are not available because it is after hours)</p> <p><i>August 15</i> - Re-samples taken at: Country Inn Restaurant ,10 Godfrey St, and LCBO</p> <p><i>August 16</i> - Results for re-samples were free of Total Coliforms and <i>E. coli</i>.</p> <p><i>August 17</i> - Second set of resamples were taken at: Country Inn Restaurant, 10 Godfrey St, Gas Station (LCBO closed)</p> <p><i>August 18</i> - 11 TC at the Gas Bar (AWQI 82821) Distribution system was flushed. Resamples were taken at: Town Hall as part of regular bacti set, and later at: Country Inn Restaurant Gas Station Sewage Plant</p> <p><i>August 20</i> - Met with MOE to discuss corrective actions. Missed 48 hour window for re-sampling at the Town Hall thus two sets of 4 samples still required. Re-samples taken at: Town Hall, Country Inn Restaurant Gas, Station and Sewage Plant</p> <p><i>August 21</i> - Resamples taken at: Town Hall, Country Inn Restaurant, Gas Station and Sewage Plant</p> <p><i>August 22</i> - 1 TC detected at the gas station (AWQI 83102)</p>	

# Drinking-Water Systems Regulation O. Reg. 170/03

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
				Distribution system was flushed, and resamples were taken at: Town Hall, Country Inn Restaurant and Gas Station Sewage Plant  <i>August 23</i> - Lab notifies OCWA that samples are free of TC.  <i>August 24</i> - A second set of re-samples are taken at: Town Hall, Country Inn Restaurant, Gas Station and Sewage Plant  <i>August 29</i> - All results indicated good quality water having no detectable total coliforms,	
October 21	Total Coliforms	6	cfu/mL	Six total coliforms were detected in a sample collected from the distribution system on October 20, 2009. The local Health Unit and MOE Spill's Action Center were notified.  Resamples were collected upstream, downstream (raw water) and at the site of the adverse result on October 22nd. All results indicated good quality water having no detectable total coliforms or <i>E. coli</i> .	October 22  (AWQI #84844 resolved on October 31, 2008)
December 9	Total Coliforms	2	cfu/mL	Two total coliforms were detected in a sample collected from the point of entry on December 8 <sup>th</sup> . The local Health Unit and MOE Spill's Action Center were notified.  Resamples were collected at two locations downstream and at the site of the adverse result on December 10 <sup>th</sup> . All results indicated good quality water having no detectable total coliforms, <i>E. coli</i> or background bacteria.	December 12  (AWQI #85744 resolved on December 16, 2008)
December 16	Chlorine Contact Time	29.46	mg/L.min	Insufficient disinfection was	December 16

# Drinking-Water Systems Regulation O. Reg. 170/03

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
	(CT)	(34.17 mg/L.min required)		caused by a faulty chlorine injector, low clearwell levels and high flows.  The chlorine injector was repaired, flows decreased and disinfection was increased. A calculation confirmed that the actual CT of 45.37 mg/L.min was greater than the required CT of 36.24 mg/L.min.	(AWQI #85812 resolved on December 16, 2008)

### Microbiological testing done under section 8(2) during this reporting period

	Number of Samples	Range of <i>E. coli</i> Results (min# to max#)	Range of Total Coliform Results (min# to max#)	Number of HPC Samples Counts	Range of HPC Results (min# to max#)
Well #1 (LL-1)	54	<1 to <2	<1 to 49	0	N/A
Well #2 (PW-1)	55	<1 to <2	<1 to 32	0	N/A
Treated	56	<1 to <1	<1 to 3	56	<1 to 13
Distribution	143	<1 to <1	<1 to 11	63	<1 to 35

MAC for *E. coli* = 0 Counts/100 mL

MAC for Total Coliforms = 0 Counts/100 mL

MAC for HPC = 500 Counts/100 mL (June 5, 2006 amendment to O. Reg. 170/03; there is no longer a standard for HPC)

### Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

#### Continuous Monitoring in Treatment Process

	Number of Samples	Range of Results (min# to max#)	Unit of Measure
Chlorine (free)	8760	0.47 to 1.62	mg/L
Turbidity (treated water)	8760	0.07 to 0.956	NTU

**NOTE: For continuous monitors use 8760 as the number of samples.**

#### Summary of Raw Water Turbidity Data

	Number of Samples	Range of Results (min# to max#)	Unit of Measure
Turbidity (Well #1 or LL-1)	36	0.20 to 0.85	NTU
Turbidity (Well #2 or PW-1)	38	0.18 to 0.77	NTU

**Summary of Chlorine Residuals in the Distribution System**

	Number of Samples	Range of Results (min# to max#)	Unit of Measure	Standard
Free Chlorine (Analyzer)	8760	0.288 to 1.79	mg/L	0.05
Free Chlorine (Weekly)	147	0.11 to 1.12	mg/L	0.05

**Note:** As of June 5th 2006, O. Reg. 170/03 was amended for Large Municipal Residential Systems such that a total of seven operational checks for chlorine residual in the distribution system are required each week. The owner/operating authority can continue to test one sample per day or test four (4) samples one day and three (3) on a second day. The sample sets must be collected at least 48-hours apart and samples collected on the same day must be from different locations.

Free chlorine residuals are collected daily in the distribution system by continuous monitoring equipment located in the Larder Lake sewage pumping station. Free chlorine residuals are tested weekly by OCWA staff when collecting bacteriological samples.

**Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.**

Date Legal Instrument Issued	Parameter	Date Sampled	Result	Unit of Measure
C of A #7871-6LYMA8 (issued February 16, 2006)	UV Intensity	Measured continuously by UV system. UV intensity is monitored by each individual unit's control module and should the light intensity of the unit fall outside the specified range, the unit will automatically shut down and a standby unit will be activated. Such an event will be recorded by the UV control system.		
	Flow Rate	Continuously measured by the raw water flow meter. Each UV unit is equipped with a flow restrictor which limits the flow to the rated hydraulic capacity.		
	UV Transmittance	Monitored by each unit's control module. Should the light transmittance of the unit fall outside the specified range, the unit will automatically shut down and a standby unit will be activated. Such an event will be recorded by the UV control system.		
	Lamp Status	Monitored by each unit's control module. Should the lamp status fail, the unit will automatically shut down and a standby unit will be activated. Such an event will be recorded by the UV control system.		

**Summary of Nitrates & Nitrites tested during this reporting period.**

Date of Sample	Nitrate Result Value	Nitrite Result Value	Unit of Measure	Exceedance
January 7	<0.1	<0.05	mg/L	No
April 21	0.12	<0.05	mg/L	No
July 14	0.12	<0.05	mg/L	No
October 27	0.13	<0.05	mg/L	No

**MAC for Nitrate = 10 mg/L      MAC for Nitrite = 1 mg/L**

## Drinking-Water Systems Regulation O. Reg. 170/03

### Summary of Total Trihalomethanes in the Distribution System during this reporting period

Date of Sample	Result Value	Unit of Measure	Running Average	Exceedance
January 7	9.2	ug/L	8.2	No
April 21	8.7	ug/L		
July 14	9.1	ug/L		
October 27	5.8	ug/L		

MAC for Trihalomethanes = 100 ug/L (Running Average)

### Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small, municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min# to max#)	Unit of Measure	Number of Exceedances
Plumbing	88	<1 to 4.2	ug/L	0
Distribution	8	<1 to <1	ug/L	0

MAC for Lead = 10 ug/L

Location Type	Number of Samples	Range of pH (units) Results (min# to max#)	Range of Alkalinity (mg/L) Results (min# to max#)
Plumbing	44	6.32 to 8.80	N/A
Distribution	8	6.69 to 7.82	103 to 119

### Summary of Most Recent Schedule 23 Inorganic parameters sampled at the Water Treatment Plant (sample required every 36 months)

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance
Antimony	October 27, 2008	<0.5	ug/L	6	No
Arsenic	October 27, 2008	1.5	ug/L	25	No
Barium	October 27, 2008	17.5	ug/L	1000	No
Boron	October 27, 2008	3.1	ug/L	5000	No
Cadmium	October 27, 2008	<0.1	ug/L	5	No
Chromium	October 27, 2008	5.2	ug/L	50	No
Mercury	October 27, 2008	0.75	ug/L	1	YES*
Selenium	October 27, 2008	<1.0	ug/L	10	No
Uranium	October 27, 2008	<1.0	ug/L	20	No

\*Mercury result exceeded ½ the MAC. Sample result received on November 11th, increased sampling initiated as per Schedule 13-5 of Ontario Regulation 170/03.

### Summary of Most Recent Schedule 24 Organic parameters sampled at the Water Treatment Plant (sample required every 36 months)

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance
Alachlor	October 27, 2008	<0.41	ug/L	5	No
Aldicarb	October 27, 2008	<0.36	ug/L	9	No
Aldrin + Dieldrin	October 27, 2008	<0.004	ug/L	0.7	No
Atrazine + N-dealkylated metabolites	October 27, 2008	<0.9	ug/L	5	No

# Drinking-Water Systems Regulation O. Reg. 170/03

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedence
Azinphos-methyl	October 27, 2008	<0.3	ug/L	20	No
Bendiocarb	October 27, 2008	<0.73	ug/L	40	No
Benzene	October 27, 2008	<0.25	ug/L	5	No
Benzo(a)pyrene	October 27, 2008	<0.01	ug/L	0.01	No
Bromoxynil	October 27, 2008	<0.77	ug/L	5	No
Carbaryl	October 27, 2008	<0.73	ug/L	90	No
Carbofuran	October 27, 2008	<.73	ug/L	90	No
Carbon Tetrachloride	October 27, 2008	<0.25	ug/L	5	No
Chlordane (Total)	October 27, 2008	<0.004	ug/L	7	No
Chlorpyrifos	October 27, 2008	<0.3	ug/L	90	No
Cyanazine	October 27, 2008	<0.3	ug/L	10	No
Diazinon	October 27, 2008	<0.3	ug/L	20	No
Dicamba	October 27, 2008	<0.31	ug/L	120	No
1,2-Dichlorobenzene	October 27, 2008	<0.25	ug/L	200	No
1,4-Dichlorobenzene	October 27, 2008	<0.25	ug/L	5	No
Dichlorodiphenyl trichloroethane (DDT) + metabolites	October 27, 2008	<0.005	ug/L	30	No
1,2-Dichloroethane	October 27, 2008	<0.25	ug/L	5	No
1,1-Dichloroethylene (vinylidene chloride)	October 27, 2008	<0.25	ug/L	14	No
Dichloromethane	October 27, 2008	<0.25	ug/L	50	No
2,4 Dichlorophenol	October 27, 2008		ug/L	900	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	October 27, 2008	<0.25	ug/L	100	No
Diclofop-methyl	October 27, 2008	<0.31	ug/L	9	No
Dimethoate	October 27, 2008	<0.3	ug/L	20	No
Dinoseb	October 27, 2008	<0.077	ug/L	10	No
Diquat	October 27, 2008	<7	ug/L	70	No
Diuron	October 27, 2008	<3.6	ug/L	150	No
Glyphosate	October 27, 2008	<10	ug/L	280	No
Heptachlor + Heptachlor Epoxide	October 27, 2008	<0.004	ug/L	3	No
Lindane (Total)	October 27, 2008	<.0004	ug/L	4	No
Malathion	October 27, 2008	<0.3	ug/L	190	No
Methoxychlor	October 27, 2008	<0.0011	ug/L	900	No
Metolachlor	October 27, 2008	<0.2	ug/L	50	No
Metribuzin	October 27, 2008	<0.2	ug/L	80	No
Monochlorobenzene	October 27, 2008	<0.25	ug/L	80	No
Paraquat	October 27, 2008	<1.0	ug/L	10	No
Parathion	October 27, 2008	<0.2	ug/L	50	No
Pentachlorophenol	October 27, 2008	<0.05	ug/L	60	No
Phorate	October 27, 2008	<0.3	ug/L	2	No
Picloram	October 27, 2008	<0.077	ug/L	190	No
Polychlorinated Biphenyls (PCB)	October 27, 2008	<0.0033	ug/L	3	No
Prometryne	October 27, 2008	<0.2	ug/L	1	No
Simazine	October 27, 2008	<0.3	ug/L	10	No
Temephos	October 27, 2008	<10	ug/L	280	No
Terbufos	October 27, 2008	<0.2	ug/L	1	No
Tetrachloroethylene	October 27, 2008	<0.25	ug/L	30	No
2,3,4,6-Tetrachlorophenol	October 27, 2008	<0.05	ug/L	100	No

## Drinking-Water Systems Regulation O. Reg. 170/03

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance
Triallate	October 27, 2008	<0.2	ug/L	230	No
Trichloroethylene	October 27, 2008	<0.25	ug/L	50	No
2,4,6-Trichlorophenol	October 27, 2008	<0.05	ug/L	5	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	October 27, 2008	<0.077	ug/L	280	No
Trifluralin	October 27, 2008	<0.2	ug/L	45	No
Vinyl Chloride	October 27, 2008	<0.25	ug/L	2	No

### Summary of Most Recent Sodium Data tested at Water Treatment Plant (sample required every 60 months)

Date of Sample	Number of Samples	Result Value	Unit of Measure	Standard	Exceedance
October 11, 2005	1	7200	ug/L	20000	No

### Summary of Most Recent Fluoride Data tested at Water Treatment Plant (sample required every 60 months)

Date of Sample	Number of Samples	Result Value	Unit of Measure	Standard	Exceedance
October 11, 2005	1	0.1	mg/L	1.5	No

### Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
Mercury	0.75	ug/L	October 27

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential) Small Municipal Non-Residential has been removed and Non Municipal Year Round Residential has been added.

# **LARDER LAKE GUDI WELL SUPPLY**

**Large Municipal Residential Drinking Water System**

## **SCHEDULE 22**

### **SUMMARY REPORT FOR MUNICIPALITIES**

**For the period of**

**JANUARY 2008 to DECEMBER 2008**

**Prepared by: OCWA**

**Prepared for: The Corporation of the Town of Larder Lake**

**Schedule 22.  
SUMMARY REPORTS FOR MUNICIPALITIES**

This report is a summary of water quality information for the **Larder Lake GUDI Well Supply System**. It is published in accordance with Schedule 22 of Ontario's Drinking Water Systems Regulation 170/03 for the reporting period of January 1, 2008 to December 31, 2008 and must be submitted to members of council.

The report must list the requirements of the Safe Drinking Water Act (2002) and the drinking water regulations which can be viewed at the following website:

<http://www.e-laws.gov.on.ca>.

***Requirements the System Failed to Meet***

Compliance with the Safe Drinking Water Act involves conforming to the system's approval and any order issued at any time during the period covered by this report. The duration of the failure and details of the actions that were taken to correct the failure must be described.

The following table lists, to my knowledge, the requirements of the Act, its Regulations, the system's Approvals and any Provincial Officer Order issued during the 2008 reporting period.

<b>Drinking Water Legislation</b>	<b>Requirement(s) the System Failed to Meet</b>	<b>Duration</b>	<b>Corrective Actions</b>	<b>Status</b>
Ontario. Regulation 170/03  Schedule 17-6	The system failed to resample and test, until total coliforms were not detected in any of the samples from two consecutive sets of samples taken 24 to 48 hours apart or as otherwise directed by the medical officer of health.	August 13 <sup>th</sup> to 29 <sup>th</sup>	Discussions with the Ministry of the Environment on August 20 <sup>th</sup> concluded that two sets of four samples were required to ensure the distribution was free of total coliforms. Sampling commenced on August 21 <sup>st</sup> and all results indicated good quality water having no total coliforms.	Complete
Ontario. Regulation 170/03  Schedule 16-4	The system failed to report an adverse incident where water was directed to users that was not disinfected in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario.  Incorrect clear well levels were used to calculate Contact Time.	September 23 <sup>rd</sup> to 24 <sup>th</sup>	The MOE inspector of the facility was notified.  A procedure was implemented and training done to ensure the proper data will be used to calculate Contact Time.	Complete

***Summary of Flow Rates***

Under schedule 22-2(3) of Ontario Regulation 170/03, the Summary Report must include the following:

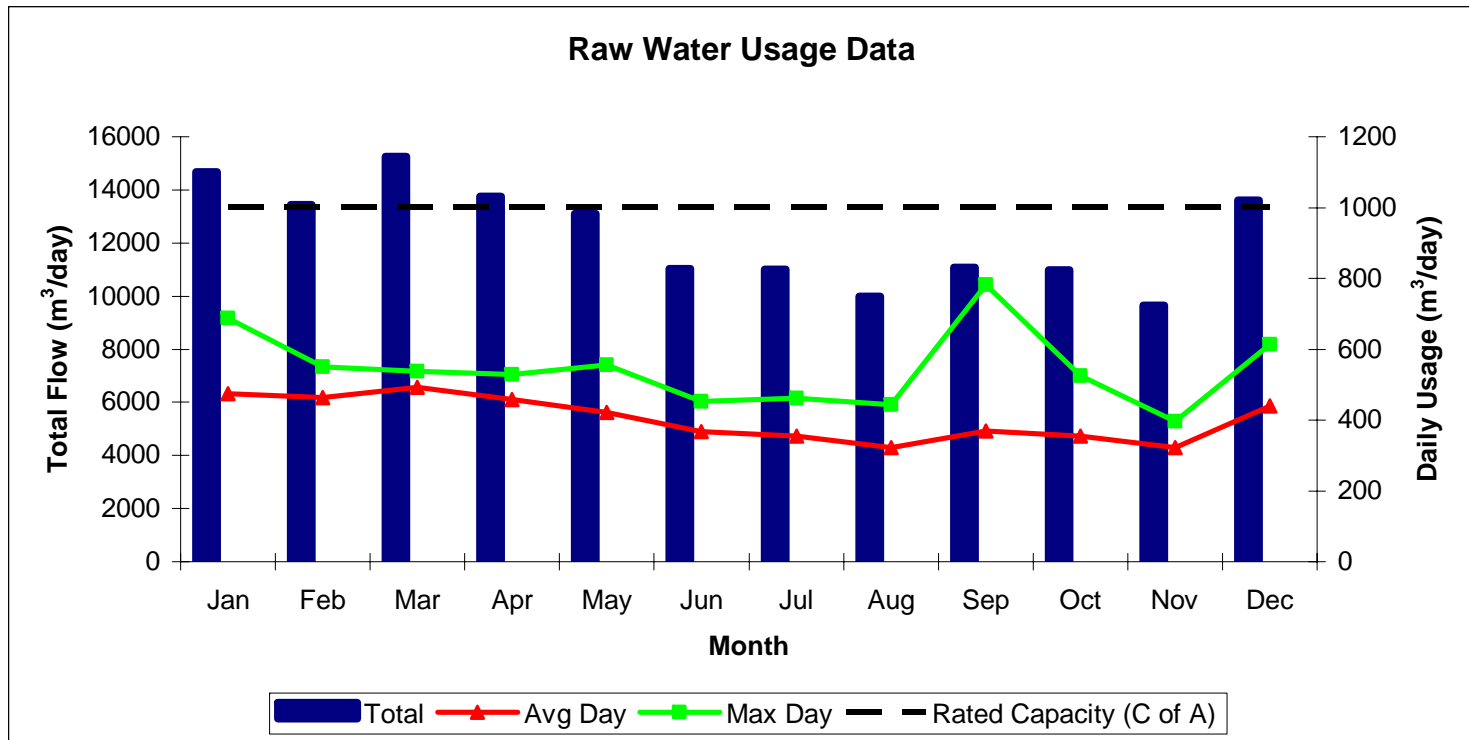
1. A summary of flow rates, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
2. A comparison of the summary referred to in #1 to the rated capacity and flow rates approved in the system's approval and permit.

The following tables and graphs indicate the quantities and flow rates of water taken and produced during the reporting period, including monthly average flows, maximum daily flows and total monthly volumes. A comparison of the water data is made to the rated capacity and flow rates specified in the system's approval and permit.

## Drinking-Water Systems Regulation O. Reg. 170/03

### 2008 Raw Water - Total

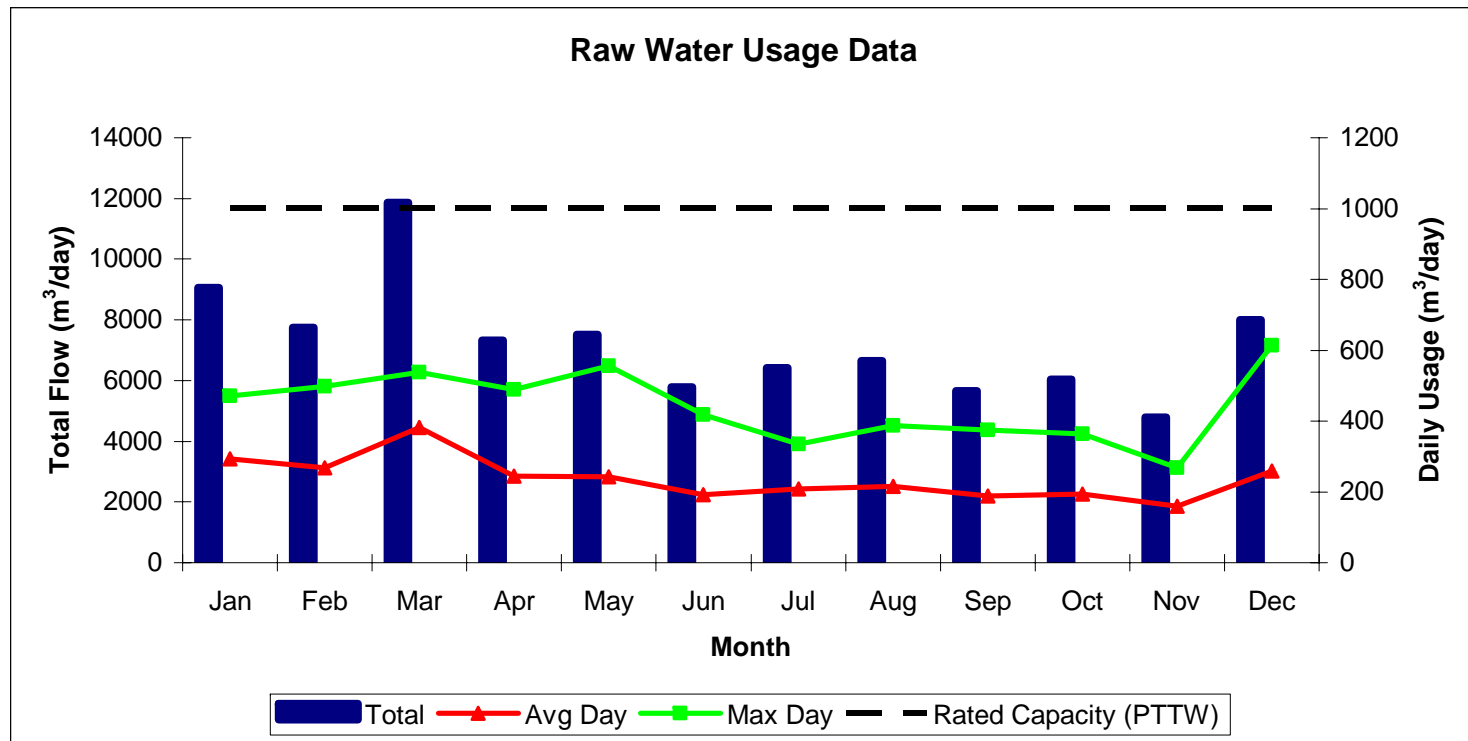
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
	<i>Volume (m<sup>3</sup>/day)</i>												
<i>Avg Day</i>	473	463	492	459	423	367	355	323	370	354	322	439	403
<i>Total</i>	14674	13432	15242	13764	13101	11019	10995	10001	11088	10971	9661	13616	147564
<i>Max Day</i>	688	551	537	528	555	453	462	444	781	524	397	614	781
<i>Rated Capacity (C of A)</i>	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002
<i>% Rated Capacity</i>	69	55	54	53	55	45	46	44	78	52	40	61	54



## Drinking-Water Systems Regulation O. Reg. 170/03

### 2008 Raw Water - Well LL-1

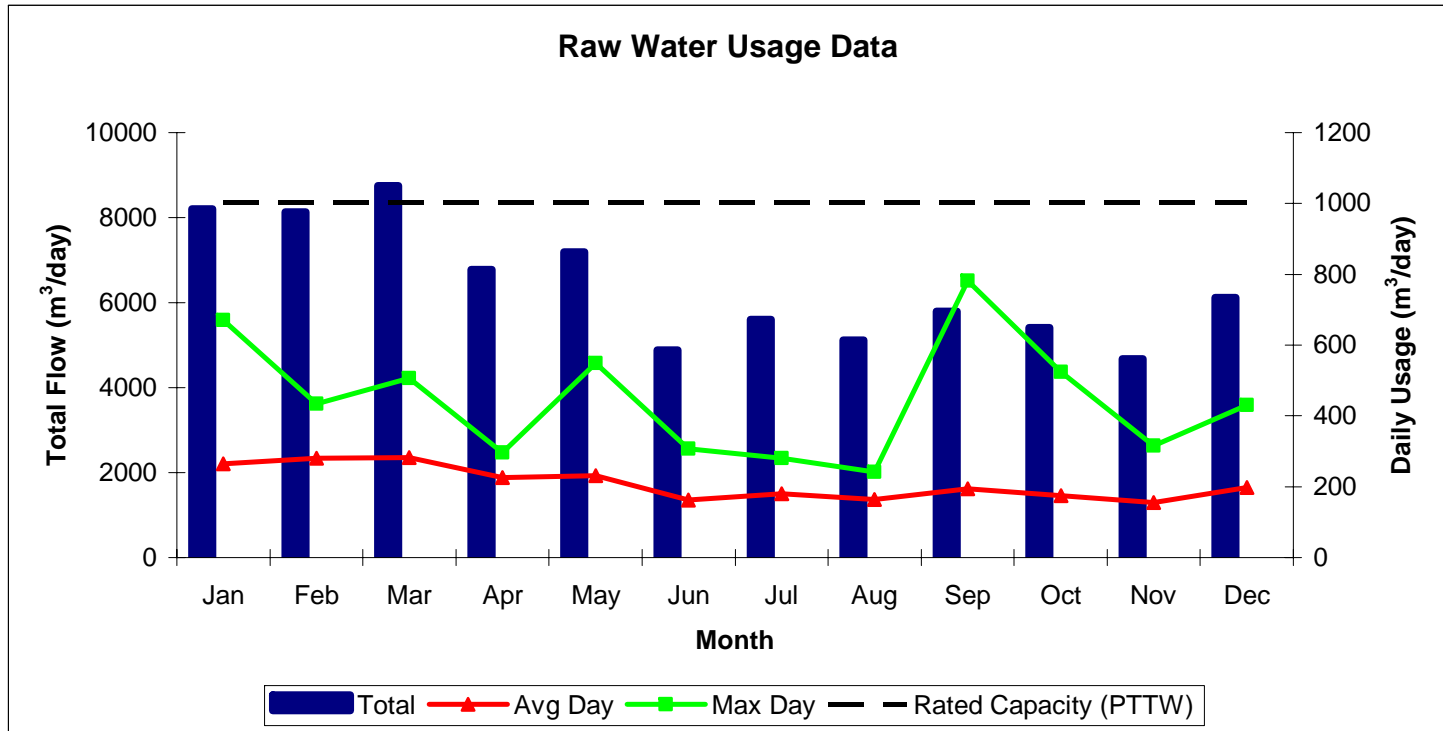
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
	<i>Volume (m<sup>3</sup>/day)</i>												
<i>Avg Day</i>	293	268	383	244	242	193	207	215	189	194	160	258	237
<i>Total</i>	9068	7760	11864	7331	7517	5775	6427	6654	5664	6029	4800	8011	86901
<i>Max Day</i>	471	498	537	488	555	418	335	388	374	363	267	614	614
<i>Rated Capacity (PTTW)</i>	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002
<i>% Rated Capacity</i>	47	50	54	49	55	42	33	39	37	36	27	61	44



## Drinking-Water Systems Regulation O. Reg. 170/03

### 2008 Raw Water - Well PW-1

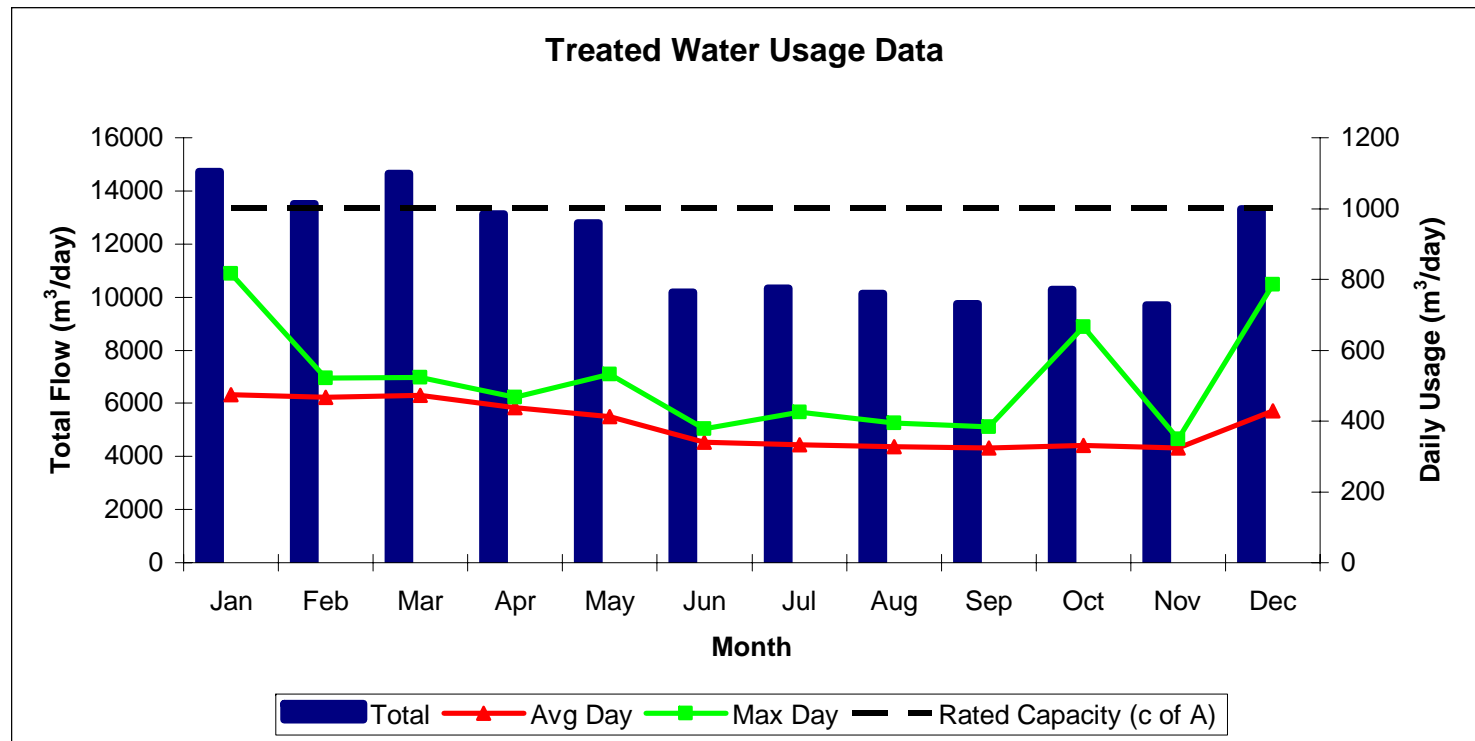
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
	<i>Volume (m<sup>3</sup>/day)</i>												
<i>Avg Day</i>	265	280	282	226	232	163	181	165	193	175	156	197	210
<i>Total</i>	8205	8132	8751	6785	7188	4887	5602	5111	5799	5416	4670	6112	76658
<i>Max Day</i>	670	434	506	296	549	307	280	242	781	524	316	430	781
<i>Rated Capacity (PTTW)</i>	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002
<i>% Rated Capacity</i>	67	43	50	30	55	31	28	24	78	52	32	43	44



## Drinking-Water Systems Regulation O. Reg. 170/03

### 2008 Treated Water

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
	<i>Volume (m<sup>3</sup>/day)</i>												
<i>Avg Day</i>	475	466	473	438	412	340	334	327	325	331	324	430	389
<i>Total</i>	14728	13524	14661	13140	12779	10189	10340	10133	9743	10275	9708	13315	142534
<i>Max Day</i>	817	521	523	467	532	378	426	395	384	666	349	785	817
<i>Rated Capacity (C of A)</i>	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002
<i>% Rated Capacity</i>	82	52	52	47	53	38	43	39	38	66	35	78	52



***Comparison of Flow Summary to System's Approval & Permit***

Certificate of Approval, #8480-78RQ4P specifies a maximum rated flow into the distribution system of 1002.24 m<sup>3</sup>/day. The maximum flow rate for the reporting period did not exceed this limit. A maximum flow rate of 817 m<sup>3</sup>/d was recorded on January 20<sup>th</sup>.

Permit to Take Water #8372-6H6NYM was issued on October 20, 2005, and authorizes the municipality to withdraw water from two wells at a maximum flow rate of 696 L/min or 1002.24 m<sup>3</sup>/d from either Well #LL-1 or Well #PW-1 or from both wells combined.

The rate of taking was not exceeded during the reporting period. The table below lists the maximum flows recorded for 2008.

<b>Source</b>	<b>Flow Rate (L/min)</b>	<b>Daily Volume (m3/d)</b>
Both Wells Combined	658.8 (September 30 & October 1)	781 (September 24 & 25)
Well # LL-1	65.9 (September 30 & October 1)	614 (December 16)
Well # PW-1	658.8 (September 30 & October 1)	781 (September 24 & 25)