
EGANVILLE DRINKING WATER SYSTEM

2013 ANNUAL
SUMMARY REPORT

Township of Bonnechere Valley
Water and Sewage Department
March 2014



Eganville Drinking Water System – 2013 Annual Summary Report

Table of Contents

| | |
|--|----|
| Executive Summary..... | 3 |
| Introduction | 4 |
| Report Availability..... | 5 |
| Eganville Drinking Water System..... | 5 |
| Summary of Adverse Test Results and Other Issues | 6 |
| Summary of Test Results..... | 6 |
| Microbiological Testing..... | 6 |
| Operational Testing..... | 6 |
| Summary of Lead Testing..... | 7 |
| Summary of Schedule 23 Inorganic Parameters..... | 8 |
| Summary of Schedule 24 Organic Parameters | 8 |
| Major Infrastructure Improvements..... | 10 |
| Water Usage Summary | 10 |



Eganville Drinking Water System – 2013 Annual Summary Report

Executive Summary

The water delivered to the customers of the Eganville Drinking Water System continues to be safe and meet all water quality standards. There were no adverse water quality incidents in 2013. The Inorganic and Organic parameters tested for in 2013 were well within Maximum Acceptable Concentrations as listed in the Ontario Drinking Water Quality Standards.

All reports required by applicable acts, regulations, permits and licences have been prepared and submitted in accordance with the legislation.

All sampling required by applicable acts, regulations, permits and licences has been conducted in accordance with the legislation.

The volume of water treated and distributed to the Village of Eganville customers averaged 503 m³/day. The maximum daily flow of 684 m³ occurred in March which is approximately 33% of the rated capacity of the Eganville Water Treatment Plant.



Eganville Drinking Water System – 2013 Annual Summary Report

Introduction

The treatment and delivery of potable water in Ontario is regulated by the Ministry of the Environment (MOE) under the Safe Drinking Water Act. On June 1, 2003 O. Reg. 170/03 came into effect which prescribes requirements for owners and operators of municipal drinking water systems.

O. Reg. 170/03 requires the owner to produce an Annual Report, under Section 11. The Report must include the following:

- ✚ A description of the drinking water system including a list of the water treatment chemicals used;
- ✚ A summary of any adverse water quality reports and corrective actions;
- ✚ A summary of all required testing results;
- ✚ A description of any mayor expenses incurred to install, repair or replace equipment.

Every time an Annual Report is prepared the owner of the system shall ensure that effective steps are taken to advise users of water from the system that copies of the report are available, without charge, and how a copy may be obtained.

The Regulation also requires the owner to produce a Summary Report as indicated in Schedule 22.

- ✚ The report must list the requirements of the Act, its Regulations, the system's Drinking Water Works Permit, Municipal Drinking Water Licence and any orders the system failed to meet during the reporting period. The report must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.
- ✚ To enable the Owner to assess the rated capacity of their system to meet existing and future planned water uses, the following information is also required in the report.
 - A summary of the quantities and flow rates of water supplied during the reporting period, including the monthly average and maximum daily flows;
 - A comparison of the summary to the rated capacity and flow rates approved in the system's Permit To Take Water, Drinking Water Works Permit and Municipal Drinking Water Licence



Eganville Drinking Water System – 2013 Annual Summary Report

Report Availability

A copy of this report shall be given, without charge, to every person who requests a copy from the Township of Bonnechere Valley Municipal Office at 49 Bonnechere St. E., Eganville, Ontario.

Users of the system in the Village of Eganville shall be advised of the availability of the report by providing an insert into their monthly water bill.

The report shall also be available on the Township of Bonnechere Valley website at www.bonnecherevalleytwp.com

Eganville Drinking Water System

The Eganville Water System is owned and operated by the Township of Bonnechere Valley and provides a potable water supply to the residents and business of the Village of Eganville. The system generally consists of a Water Treatment Plant (WTP), a distribution system and a water standpipe.

The WTP, built in 1990, treats water from the Bonnechere River with two Graver Monoplant Package Units, which have a combined capacity of 2,070 m³/day. The distribution system, originally constructed in the mid 1970's consists of approximately 13 km of piping ranging in diameter from 150 mm to 250 mm with a 300,000 Imperial gallon (1,363 m³) capacity steel standpipe for pressure equalization and supply.

The water treatment process within the two Graver Monoplant Package Units uses Sodium Hypochlorite for pre-disinfection and Pre Hydroxylated Aluminum Sulphate with Polyelectrolyte for coagulation. The treated and filtered water is then disinfected with Sodium Hypochlorite prior to being pumped out to the distribution system.

| Large Residential Drinking Water System | |
|---|---------------------------------|
| Name | Eganville Drinking Water System |
| Owner | Township of Bonnechere Valley |
| Number | 210000675 |
| Municipal Drinking Water Licence | 171-101 |
| Drinking Water Works Permit | 171-201 |
| Permit To Take Water | 7529-5S6NUN |
| Financial Plan | 171-301 |
| QMS Operational Plan | 171-401 |



Eganville Drinking Water System – 2013 Annual Summary Report

Summary of Adverse Test Results and Other Issues

There were no adverse test results or other regulatory issues in 2013.

Summary of Test Results

Microbiological Testing

| Source | Number of Samples | Range of E. Coli Results (CFU/100ml) (min #-max #) | Range of Total Coliform Results (CFU/100ml) (min #-max #) | ODWQS* |
|--------------|-------------------|--|---|--------|
| Raw | 53 | 1-29 | <2-80 | N/A |
| Treated | 53 | 0 | 0 | 0 |
| Distribution | 179 | 0 | 0 | 0 |

* ODWQS – Ontario Drinking Water Quality Standard, Ont. Reg. 169/03

| Source | Number of HPC* Samples | Range of HPC Results (Colonies per ml) (min#-max#) | ODWQS |
|--------------|------------------------|--|-------|
| Raw | 0 | N/A | N/A |
| Treated | 53 | <2-14 | 500 |
| Distribution | 179 | <2-12 | 500 |

*HPC - Heterotrophic Plate Count

Operational Testing

| Parameter | Number of Samples | Range of Results (min #)-(max #) | ODWQS |
|---|-------------------|---|-----------------|
| Turbidity (4 dual media filters & 2 GAC filters) | 8760 per filter | <0.3 greater than 90% of the time & <1.0 100% of the time | 1.0 NTU* |
| Free Chlorine Residual in water entering distribution system | 8760 | 1.36 – 2.99 mg/L | 0.05 - 4.0 mg/L |
| Total Chlorine Residual in water entering distribution system | 8760 | 1.55 – 3.43 mg/L | N/A |
| Free Chlorine Residual in distribution system | 541 | 0.44 – 2.20 mg/L | 0.05 - 4.0 mg/L |
| Total Chlorine Residual in distribution system | 541 | 0.98 – 2.35 mg/L | N/A |

*NTU – Nephelometric Turbidity Unit



Eganville Drinking Water System - 2013 Annual Summary Report

Summary of Lead Testing

| Sample Period | Sample Date | Location | Sample Results | | |
|-----------------------------|------------------|------------------------------------|----------------|--------------------|------|
| | | | Lead* mg/L | Alkalinity mg/L | pH |
| June to October 2012 | Sept. 25, 2012 | Hydrant #0043 78 Queen St. | 0.00018 | 34 | 7.38 |
| June to October 2012 | Sept. 25, 2012 | Hydrant #0007 46 Bonnechere St. | 0.00016 | 34 | 7.28 |
| December 2012 to April 2013 | Jan. 29, 2013 | Hydrant #0010 49 Maple St. | 0.00057 | 26 | 7.26 |
| December 2012 to April 2013 | Jan. 29, 2013 | Hydrant #0047 30 Bell St. | 0.00017 | 26 | 7.20 |
| June to October 2013 | Oct. 22/24, 2013 | Hydrant #0010 49 Maple St. | 0.00034 | 23 | 6.97 |
| June to October 2013 | Oct. 22/24, 2013 | Hydrant #0047 30 Bell St. | 0.00024 | 27 | 7.06 |

*ODWQS standard for lead in drinking water is 0.01 mg/L



Eganville Drinking Water System – 2013 Annual Summary Report

Summary of Schedule 23 Inorganic Parameters

The treated water was sampled on January 29, 2013 for the following inorganic parameters. No exceedance of the ODWQS was noted.

| Inorganic Parameter | Results (mg/L) | ODWQS (mg/L) |
|----------------------------|-----------------------|---------------------|
| Antimony | <0.0001 | 0.006 |
| Arsenic | <0.0005 | 0.025 |
| Barium | 0.025 | 1.0 |
| Boron | <0.005 | 5.0 |
| Cadmium | <0.00002 | 0.005 |
| Chromium | <0.002 | 0.05 |
| Mercury | <0.00002 | 0.00. |
| Selenium | <0.001 | 0.01 |
| Uranium | <0.00005 | 0.02 |
| Other Parameters | | |
| Lead | 0.00007 | 0.01 |
| Sodium | 5.0 | 200 |
| Fluoride | <0.1 | 1.5 |
| Nitrite | <0.1 | 1.0 |
| Nitrate | 0.1 | 10.0 |

Summary of Schedule 24 Organic Parameters

The treated water was sampled on January 29, 2013 for the following organic parameters. No exceedance of the ODWQS was noted.

| Organic Parameter | Result (ug/L) | ODWQS (ug/L) |
|--------------------------------------|----------------------|---------------------|
| Alachlor | <0.3 | 5 |
| Aldicarb | < 3 | 9 |
| Aldrin + Dieldrin | <0.02 | 0.7 |
| Atrazine + N-dealkylated metabolites | <0.5 | 5 |
| Azinphos-methyl | <1 | 20 |
| Bendiocarb | <3 | 40 |
| Benzene | <0.5 | 5 |
| Benzo(a)pyrene | <0.005 | 0.01 |
| Bromoxynil | <0.3 | 5 |
| Carbaryl | <3 | 90 |
| Carbofuran | <1 | 90 |
| Carbon Tetrachloride | <0.2 | 5 |
| Chlordane (Total) | <0.04 | 7 |
| Chlorpyrifos | <0.5 | 90 |



Eganville Drinking Water System - 2013 Annual Summary Report

| Organic Parameter | Result (ug/L) | ODWQS (ug/L) |
|---|---------------|--------------|
| Cyanazine | <0.5 | 10 |
| Diazinon | <1 | 20 |
| Dicamba | <5 | 120 |
| 1,2-Dichlorobenzene | <0.1 | 200 |
| 1,4-Dichlorobenzene | <0.2 | 5 |
| Dichlorodiphenyltrichloroethane (DDT) + metabolites | <0.1 | 30 |
| 1,2-Dichloroethane | <0.1 | 5 |
| 1,1-Dichloroethane | <0.1 | 14 |
| Dichloromethane | <0.3 | 50 |
| 2-4 Dichlorophenol | <0.1 | 900 |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | <5 | 100 |
| Diclofop-methyl | <0.5 | 9 |
| Dimethoate | <1 | 20 |
| Dinoseb | <0.5 | 10 |
| Diquat | <5 | 70 |
| Diuron | <5 | 150 |
| Glyphosate | <25 | 280 |
| Heptachlor + Heptachlor Epoxide | <0.1 | 3 |
| Lindane (Total) | <0.1 | 4 |
| Malathion | <5 | 190 |
| Methoxychlor | <0.1 | 900 |
| Metolachlor | <3 | 50 |
| Metribuzin | <3 | 80 |
| Monochlorobenzene | <0.2 | 80 |
| Paraquat | <1 | 10 |
| Parathion | <3 | 50 |
| Pentachlorophenol | <0.1 | 60 |
| Phorate | <0.3 | 2 |
| Picloram | <5 | 190 |
| Polychlorinated Biphenyls(PCB) | <0.05 | 3 |
| Prometryne | <0.1 | 1 |
| Simazine | <0.5 | 10 |
| THM (Oct 22 latest annual running average) | 68.9 | 100 |
| Temephos | <10 | 280 |
| Terbufos | <0.3 | 1 |
| Tetrachloroethylene | <0.2 | 30 |
| 2,3,4,6-Tetrachlorophenol | <0.1 | 100 |
| Triallate | <10 | 230 |
| Trichloroethylene | <0.1 | 5 |
| 2,4,6-Trichlorophenol | <0.1 | 5 |
| 2,4,5-Trichlorophenoxy acetic acid (2,4,5-T) | <10 | 280 |
| Trifluralin | <0.5 | 45 |
| Vinyl Chloride | <0.2 | 2 |



Eganville Drinking Water System – 2013 Annual Summary Report

Major Infrastructure Improvements

During 2013 the Water Treatment Plant's High Lift and Low Lift Pumps were replaced. Total cost including engineering, supply and installation was approximately \$200,000 of which 2/3 was refunded under the Ontario Small Waterworks Assistance Program.

Water Usage Summary

| 2013 Month | Average Day m ³ | Maximum Day m ³ | Monthly Total m ³ |
|----------------|----------------------------|----------------------------|------------------------------|
| January | 480 | 632 | 14878 |
| February | 503 | 583 | 14090 |
| March | 506 | 684 | 15694 |
| April | 500 | 622 | 14996 |
| May | 520 | 675 | 16117 |
| June | 515 | 613 | 15444 |
| July | 507 | 596 | 15731 |
| August | 465 | 548 | 14414 |
| September | 505 | 608 | 15156 |
| October | 515 | 599 | 15962 |
| November | 502 | 601 | 15055 |
| December | 522 | 611 | 16194 |
| Total | | | 183731 |
| Average | 503 | 614 | 15311 |

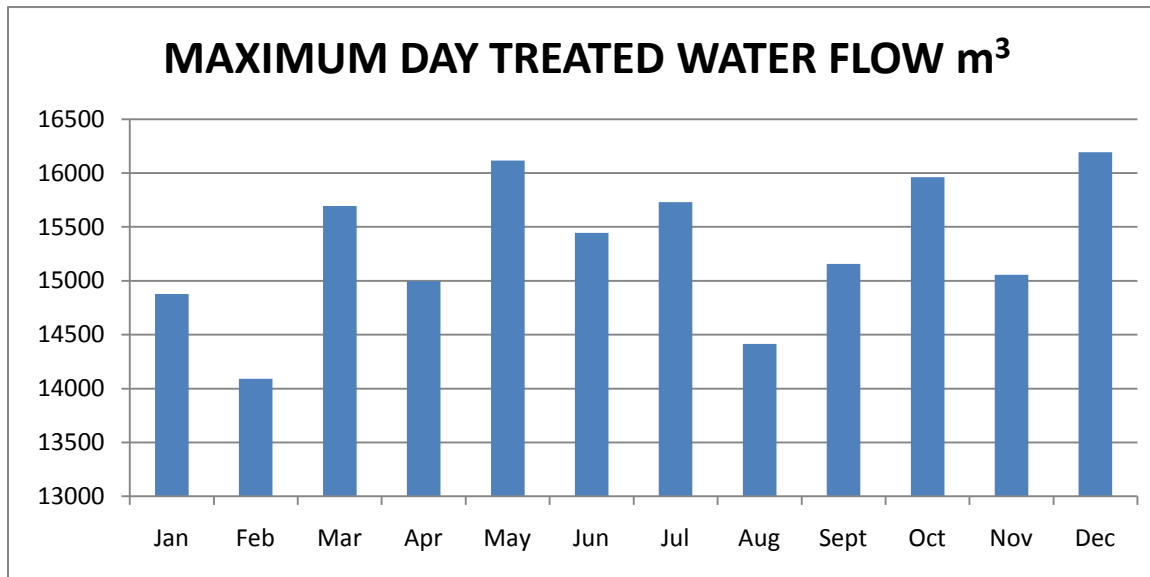
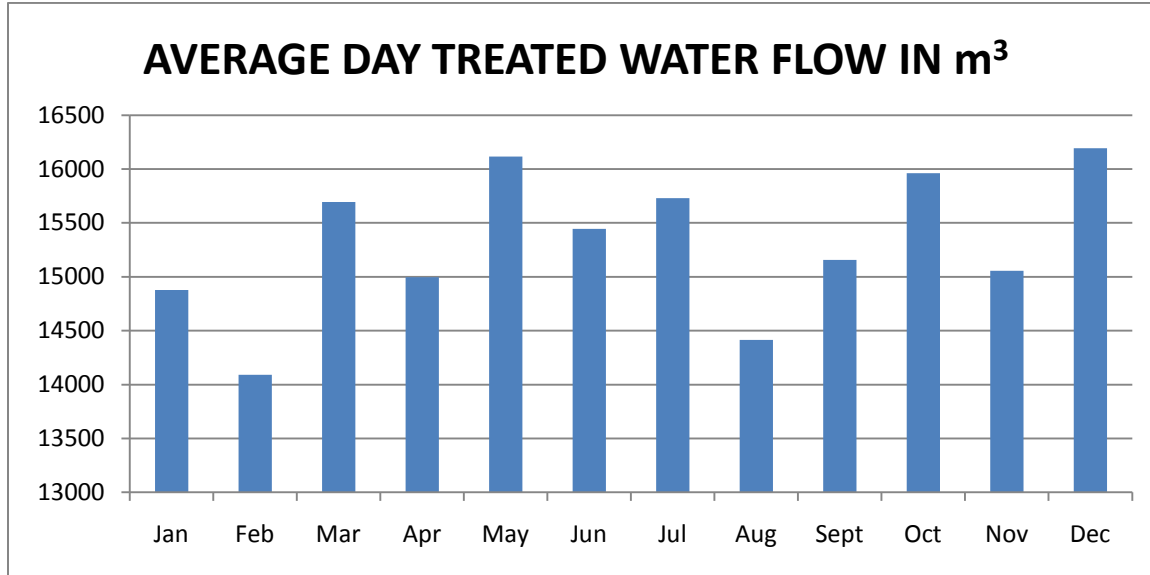
The rated capacity of the Eganville Water Treatment Plant is 2070 m³/day.

The maximum daily flow recorded during 2013 was 684 m³ which is only 33% of the rated capacity.

Based on this the Eganville Water Treatment Plant has more than adequate capacity to supply the Village of Eganville with drinking water for the foreseeable future.

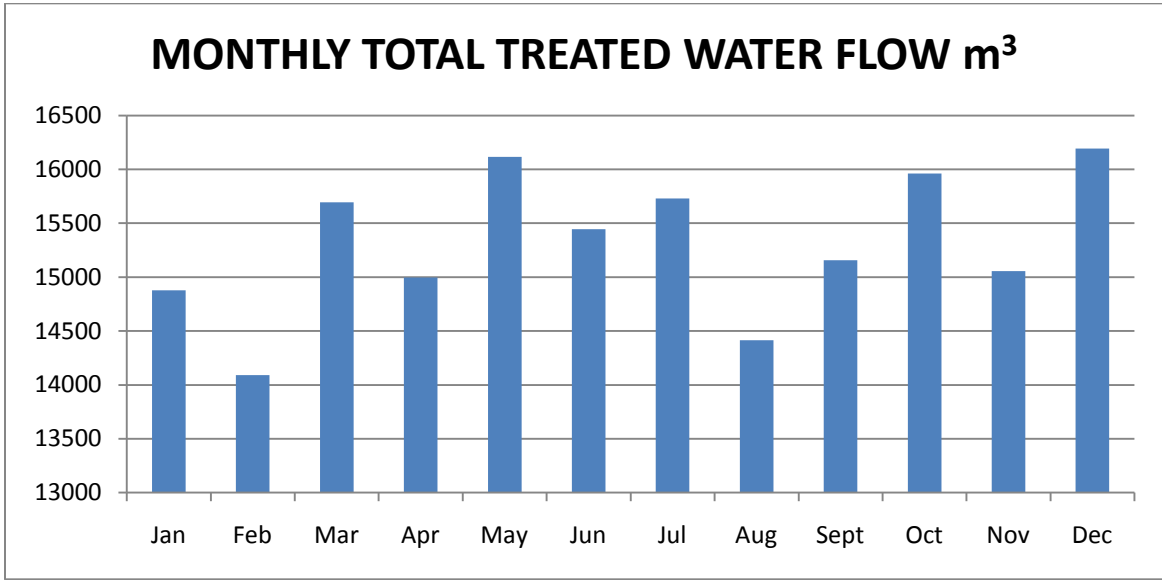


Eganville Drinking Water System - 2013 Annual Summary Report





Eganville Drinking Water System - 2013 Annual Summary Report



| EGANVILLE DRINKING WATER SYSTEM - MICROBIOLOGICAL ANALYSIS | | | | | | | | | | |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------------------|
| | RAW WATER | | | TREATED WATER | | | DISTRIBUTION SYSTEM | | | |
| | | TOTAL COLIFORMS (TC) | ESCHERICHIA COLI (EC) | TOTAL COLIFORMS (TC) | ESCHERICHIA COLI (EC) | HETEROPHIC PLATE COUNT (HPC) | | TOTAL COLIFORMS (TC) | ESCHERICHIA COLI (EC) | HETEROPHIC PLATE COUNT (HPC) |
| MONTH | NUMBER OF SAMPLES COLLECTED | RANGE OF RESULTS CFU/100 ml | RANGE OF RESULTS CFU/100 ml | RANGE OF RESULTS CFU/100 ml | RANGE OF RESULTS CFU/100 ml | RANGE OF RESULTS Colonies /1 ml | NUMBER OF SAMPLES COLLECTED | RANGE OF RESULTS CFU/100 ml | RANGE OF RESULTS CFU/100 ml | RANGE OF RESULTS Colonies /1 ml |
| JANUARY | 5 | 6 -- 16 | 1 -- 4 | 0 | 0 | <2 -- 14 | 15 | 0 | 0 | <2 -- 2 |
| FEBRUARY | 4 | 8 -- 14 | 1 -- 3 | 0 | 0 | <2 -- 6 | 12 | 0 | 0 | <2 -- 6 |
| MARCH | 4 | 8 -- 12 | 1 -- 2 | 0 | 0 | <2 -- <2 | 12 | 0 | 0 | <2 -- 2 |
| APRIL | 5 | 8 -- 16 | 1 -- 2 | 0 | 0 | <2 -- <2 | 15 | 0 | 0 | <2 -- 4 |
| MAY | 4 | 2 -- 24 | 1 -- 18 | 0 | 0 | <2 -- 6 | 15 | 0 | 0 | <2 -- 8 |
| JUNE | 4 | 14 -- 60 | 4 -- 29 | 0 | 0 | <2 -- <2 | 16 | 0 | 0 | <2 -- <2 |
| JULY | 5 | 10 -- 26 | 8 -- 20 | 0 | 0 | <2 -- <2 | 20 | 0 | 0 | <2 -- 2 |
| AUGUST | 4 | 12 -- 60 | 6 -- 16 | 0 | 0 | <2 -- <2 | 16 | 0 | 0 | <2 -- 10 |
| SEPTEMBER | 4 | 24 -- 62 | 7 -- 16 | 0 | 0 | <2 -- <2 | 16 | 0 | 0 | <2 -- 4 |
| OCTOBER | 5 | 8 -- 80 | 1 -- 28 | 0 | 0 | <2 -- <2 | 15 | 0 | 0 | <2 -- <2 |
| NOVEMBER | 4 | <2 -- 28 | 1 -- 10 | 0 | 0 | <2 -- <2 | 12 | 0 | 0 | <2 -- 12 |
| DECEMBER | 5 | 4 -- 16 | 1 -- 2 | 0 | 0 | <2 -- <2 | 15 | 0 | 0 | <2 -- 6 |
| TOTAL | 53 | | | | | | 179 | | | |

*CFU/100ml is Colony Forming Units per 100 millilitres

| EGANVILLE DRINKING WATER SYSTEM | | | | | | | | | | |
|---------------------------------|----------------------------|----------------------------|------------------------------|------------------------------|-----------------------------|--|---|----------------------------------|--|---|
| | TREATED WATER FLOW | | | PROCESS WASTE WATER | TREATED WATER DISINFECTION | | | DISTRIBUTION SYSTEM DISINFECTION | | |
| MONTH | AVERAGE DAY m ³ | MAXIMUM DAY m ³ | MONTHLY TOTAL m ³ | MONTHLY TOTAL m ³ | NUMBER OF SAMPLES COLLECTED | RANGE OF FREE CHLORINE RESIDUAL (mg/l) | RANGE OF TOTAL CHLORINE RESIDUAL (mg/l) | NUMBER OF SAMPLES COLLECTED | RANGE OF FREE CHLORINE RESIDUAL (mg/l) | RANGE OF TOTAL CHLORINE RESIDUAL (mg/l) |
| JANUARY | 480 | 632 | 14878 | 1974 | 8760 | 1.63 -- 2.20 | 1.95 -- 2.62 | 46 | 0.81 -- 2.09 | 1.58 -- 2.20 |
| FEBRUARY | 503 | 583 | 14090 | 3424 | 8760 | 1.74 -- 2.61 | 2.00 -- 3.06 | 40 | 0.72 -- 2.10 | 1.79 -- 2.20 |
| MARCH | 506 | 684 | 15694 | 3280 | 8760 | 1.76 -- 2.55 | 2.10 -- 3.00 | 43 | 0.81 -- 2.20 | 1.53 -- 2.35 |
| APRIL | 500 | 622 | 14996 | 2039 | 8760 | 1.86 -- 2.99 | 1.77 -- 3.43 | 45 | 0.88 -- 2.17 | 1.64 -- 2.20 |
| MAY | 520 | 675 | 16117 | 1695 | 8760 | 1.69 -- 2.17 | 1.90 -- 2.44 | 43 | 0.80 -- 1.87 | 1.57 -- 2.09 |
| JUNE | 515 | 613 | 15444 | 1928 | 8760 | 1.76 -- 2.06 | 1.83 -- 2.31 | 46 | 0.77 -- 1.91 | 1.25 -- 2.11 |
| JULY | 507 | 596 | 15731 | 1479 | 8760 | 1.36 -- 2.38 | 1.55 -- 2.63 | 51 | 0.49 -- 2.01 | 0.98 -- 2.20 |
| AUGUST | 465 | 548 | 14414 | 1790 | 8760 | 1.62 -- 2.33 | 1.83 -- 2.61 | 47 | 0.82 -- 1.99 | 1.41 -- 2.20 |
| SEPTEMBER | 505 | 608 | 15156 | 2184 | 8760 | 1.62 -- 2.57 | 1.94 -- 2.92 | 46 | 0.85 -- 2.03 | 1.60 -- 2.20 |
| OCTOBER | 515 | 599 | 15962 | 2049 | 8760 | 1.77 -- 2.60 | 1.89 -- 3.00 | 46 | 0.71 -- 2.04 | 1.72 -- 2.20 |
| NOVEMBER | 502 | 601 | 15055 | 1713 | 8760 | 1.45 -- 1.93 | 1.68 -- 2.21 | 42 | 0.44 -- 1.59 | 1.17 -- 1.79 |
| DECEMBER | 522 | 611 | 16194 | 2299 | 8760 | 1.40 -- 2.28 | 1.61 -- 2.59 | 46 | 0.68 -- 2.12 | 1.10 -- 2.20 |
| TOTAL | | | 183731 | 25854 | 105120 | | | 541 | | |
| AVERAGE | 503 | 614 | 15311 | 2155 | | 1.63 -- 2.39 | 1.83 -- 2.73 | 45 | 0.73 -- 2.01 | 1.45 -- 2.14 |
| | | | | | | | | | | |

| EGANVILLE WATER TREATMENT PLANT - TREATED WATER - CHEMICAL ANALYSIS | | | | | | | | | |
|---|-----------------------------|----------------------|----------------------|-----------------------------|----------------------|----------------------|-----------------------------|----------------------|----------------------|
| MONTH | TREATED WATER FLUORIDE | | | TREATED WATER NITRITE | | | TREATED WATER NITRATE | | |
| | NUMBER OF SAMPLES COLLECTED | MONTHLY AVERAGE mg/l | MONTHLY MAXIMUM mg/l | NUMBER OF SAMPLES COLLECTED | MONTHLY AVERAGE mg/l | MONTHLY MAXIMUM mg/l | NUMBER OF SAMPLES COLLECTED | MONTHLY AVERAGE mg/l | MONTHLY MAXIMUM mg/l |
| JANUARY | 1 | <0.1 | <0.1 | 1 | <0.1 | <0.1 | 1 | 0.1 | 0.1 |
| FEBRUARY | | | | | | | | | |
| MARCH | | | | | | | | | |
| APRIL | | | | 1 | <0.1 | <0.1 | 1 | 0.1 | 0.1 |
| MAY | | | | | | | | | |
| JUNE | | | | | | | | | |
| JULY | | | | 1 | <0.1 | <0.1 | 1 | 0.1 | 0.1 |
| AUGUST | | | | | | | | | |
| SEPTEMBER | | | | | | | | | |
| OCTOBER | | | | 1 | <0.1 | <0.1 | 1 | <0.1 | <0.1 |
| NOVEMBER | | | | | | | | | |
| DECEMBER | | | | | | | | | |
| TOTAL | 1 | | | 4 | | | 4 | | |
| AVERAGE | | <0.1 | | | <0.1 | | | 0.1 | |
| MAXIMUM | | | 0 | | | 0 | | | 0.1 |
| ODWQS* | | | 1.5 mg/l | | | 1.0 mg/l | | | 10.0 mg/l |

ODWQS - ONTARIO DRINKING WATER QUALITY STANDARD, ONT. REG. 169/03

| EGANVILLE WATER TREATMENT PLANT - TREATED WATER - SCHEDULE 23 - INORGANIC PARAMETERS | | | | | | | | | |
|--|--|----------------|----------------|--------------|--|--------------|--|--------------|--|
| SAMPLE DATE: | | Jan.29,2013 | | | | | | | |
| PARAMETER | | RESULT mg/l | ODWQS* mg/l | | | | | | |
| Antimony | | <0.0001 | 0.006 | | | | | | |
| Arsenic | | 0.0005 | 0.025 | | | | | | |
| Barium | | 0.025 | 1 | | | | | | |
| Boron | | <0.005 | 5 | | | | | | |
| Cadmium | | <0.00002 | 0.005 | | | | | | |
| Chromium | | <0.002 | 0.05 | | | | | | |
| Mercury | | <0.00002 | 0.001 | | | | | | |
| Selenium | | <0.001 | 0.01 | | | | | | |
| Uranium | | <0.00005 | 0.02 | | | | | | |
| | | | | | | | | | |
| EGANVILLE WATER TREATMENT PLANT - TREATED WATER - DISTRIBUTION SYSTEM - TRIHALOMETHANE | | | | | | | | | |
| SAMPLE DATE | | Jan.29,2013 | | Apr.16,2013 | | July 10,2013 | | Oct.22,2013 | |
| PARAMETER | | RESULTS ug/l | | RESULTS ug/l | | RESULTS ug/l | | RESULTS ug/l | |
| Chloroform | | 41.5 | | 45.9 | | 77.3 | | 102 | |
| Bromodichloromethane | | 1.8 | | 1.5 | | 2.8 | | 2.6 | |
| Dibromochloromethane | | <0.1 | | <0.1 | | <0.1 | | <0.1 | |
| Bromoform | | <0.1 | | <.1 | | <0.1 | | <0.1 | |
| Total Trihalomethane | | 43.3 | | 47.4 | | 80.1 | | 105 | |
| | | | | | | | | | |
| Annual Running Average | | 62.5 | | 62.5 | | 59.4 | | 68.9 | |
| | | | | | | | | | |

ODWQS - ONTARIO DRINKING WATER QUALITY STANDARD, ONT. REG. 169/03

| EGANVILLE WATER TREATMENT PLANT - TREATED WATER - SCHEDULE 24 - ORGANIC PARAMETERS | | | | | | | |
|--|--|--------|-------|--|--|--------|-------|
| January 29,2013 | | RESULT | ODWQS | | | RESULT | ODWQS |
| PARAMETER | | ug/l | ug/l | PARAMETER | | ug/l | ug/l |
| Alachlor | | <0.3 | 5 | Diquat | | <5 | 70 |
| Aldicarb | | <3 | 9 | Diuron | | <5 | 150 |
| Aldrin + Dieldrin | | <0.02 | 0.7 | Glyphosate | | <25 | 280 |
| Atrazine + N-dealkylated metabolites | | <0.5 | 5 | Heptachlor + Heptachlor Epoxide | | <0.1 | 3 |
| Azinphos-methyl | | <1 | 20 | Lindane (Total) | | <0.1 | 4 |
| Bendiocarb | | <3 | 40 | Malathion | | <5 | 190 |
| Benzene | | <0.5 | 5 | Methoxychlor | | <0.1 | 900 |
| Benzo(a)pyrene | | <0.05 | 0.01 | Metolachlor | | <3 | 50 |
| Bromoxynil | | <0.3 | 5 | Metribuzin | | <3 | 80 |
| Carbaryl | | <3 | 90 | Monochlorobenzene | | <0.2 | 80 |
| Carbofuran | | <1 | 90 | Paraquat | | <1 | 10 |
| Carbon Tetrachloride | | <0.2 | 5 | Parathion | | <3 | 50 |
| Chlordane (Total) | | <0.04 | 7 | Pentachlorophenol | | <0.1 | 60 |
| Chlorpyrifos | | <0.5 | 90 | Phorate | | <0.3 | 2 |
| Cyanazine | | <0.5 | 10 | Picloram | | <5 | 190 |
| Diazinon | | <1 | 20 | Polychlorinated Biphenyls (PCB) | | <0.05 | 3 |
| Dicamba | | <5 | 120 | Prometryne | | <0.1 | 1 |
| 1,2-Dichlorobenzene | | <0.1 | 200 | Simazine | | <0.5 | 10 |
| 1,4-Dichlorobenzene | | <0.2 | 5 | Temephos | | <10 | 280 |
| DDT + metabolites | | <0.01 | 30 | Terbufos | | <0.3 | 1 |
| 1,2-dichloroethane | | <0.1 | 5 | Tetrachloroethylene (perchloroethylene) | | <0.2 | 30 |
| 1,1-Dichloroethylene (vinylidene chloride) | | <0.2 | 14 | 2,3,4,6-Tetrachlorophenol | | <0.1 | 100 |
| Dichloromethane | | <.3 | 50 | Triallate | | <10 | 230 |
| 2,4-Dichlorophenol | | <0.1 | 900 | Trichloroethylene | | <0.2 | 5 |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | | <5 | 100 | 2,4,6-Trichlorophenol | | <0.1 | 5 |
| Diclofop-methyl | | <0.5 | 9 | 2,4,5-Trichlorophenoxy acetic acid (2,4,5-T) | | <10 | 280 |
| Dimethoate | | <1 | 20 | Trifluralin | | <0.5 | 45 |
| Dinoseb | | <0.5 | 10 | Vinyl Chloride | | <0.2 | 2 |

| EGANVILLE WATER TREATMENT PLANT - OPERATIONAL DATA - MONTHLY AVERAGES | | | | | | | | | | |
|---|------|---------|------------------------|---------|--------------|---------|--------|---------|----------------|---------|
| | pH | | ALKALINITY | | CONDUCTIVITY | | COLOUR | | TEMPERATURE | |
| | | | mg/l CaCo ₃ | | umhos/cm | | TCU | | C ^o | |
| MONTH | RAW | TREATED | RAW | TREATED | RAW | TREATED | RAW | TREATED | RAW | TREATED |
| JANUARY | 7.62 | 7.09 | 43 | 26 | 123 | 149 | 16 | 1 | 1.8 | 4.7 |
| FEBRUARY | 7.64 | 7.09 | 39 | 21 | 121 | 148 | 17 | 1 | 2.0 | 4.8 |
| MARCH | 7.49 | 7.00 | 41 | 22 | 123 | 148 | 17 | 1 | 2.9 | 6.4 |
| APRIL | 7.76 | 7.29 | 45 | 28 | 130 | 160 | 20 | 1.4 | 6.3 | 8.9 |
| MAY | 7.77 | 7.44 | 39 | 24 | 119 | 148 | 25 | 1 | 14.3 | 15.2 |
| JUNE | 7.30 | 6.94 | 35 | 21.5 | 115 | 146 | 30 | 1.2 | 19.5 | 19.3 |
| JULY | 7.40 | 7.07 | 41 | 26 | 117 | 148 | 35 | 1.2 | 23.9 | 22.7 |
| AUGUST | 7.65 | 7.08 | 40 | 27 | 116 | 152 | 28 | 1.2 | 21.8 | 21.6 |
| SEPTEMBER | 7.35 | 7.12 | 41 | 28 | 111 | 150 | 21 | 1.1 | 17.7 | 18.9 |
| OCTOBER | 7.36 | 6.96 | 40 | 26.6 | 104 | 129 | 21 | 1.4 | 14.0 | 15.6 |
| NOVEMBER | 7.83 | 7.21 | 39 | 26 | 121 | 140 | 25 | 1.3 | 4.5 | 6.8 |
| DECEMBER | 7.56 | 7.05 | 37 | 20 | 111 | 136 | 21 | 1.6 | 2.0 | 3.1 |
| | | | | | | | | | | |
| AVERAGE | 7.56 | 7.11 | 40 | 25 | 118 | 146 | 23 | 1.2 | 10.9 | 12.3 |
| | | | | | | | | | | |

| EGANVILLE WATER TREATMENT PLANT - OPERATIONAL DATA - PROCESS CHEMICAL USAGE | | | | | | | |
|---|----------------|--------------------|-------------|----------|-------------|---------|-------------|
| MONTH | RAW WATER FLOW | SODIUM HYPOCHORITE | | PAS-8 | | POLYMER | |
| | m ³ | Kg Used | Dosage mg/l | Kg Used | Dosage mg/l | Kg Used | Dosage mg/l |
| JANUARY | 16,848 | 130.80 | 7.76 | 1193.60 | 70.85 | 4.39 | 0.26 |
| FEBRUARY | 17,514 | 106.38 | 6.07 | 1337.40 | 76.36 | 4.89 | 0.28 |
| MARCH | 18,974 | 137.64 | 7.25 | 1398.00 | 73.68 | 5.30 | 0.28 |
| APRIL | 17,035 | 134.13 | 7.87 | 1121.00 | 65.81 | 4.60 | 0.27 |
| MAY | 17,812 | 139.20 | 7.81 | 1095.50 | 61.50 | 4.81 | 0.27 |
| JUNE | 17,372 | 126.42 | 7.28 | 1120.50 | 64.50 | 4.69 | 0.27 |
| JULY | 17,210 | 145.38 | 8.45 | 1041.77 | 60.53 | 4.65 | 0.27 |
| AUGUST | 16,204 | 157.98 | 9.75 | 996.15 | 61.48 | 4.38 | 0.27 |
| SEPTEMBER | 17,340 | 156.60 | 9.03 | 1063.05 | 61.31 | 4.71 | 0.27 |
| OCTOBER | 18,011 | 127.32 | 7.07 | 1128.01 | 62.63 | 5.05 | 0.28 |
| NOVEMBER | 16,768 | 124.56 | 7.43 | 1041.10 | 62.09 | 4.50 | 0.27 |
| DECEMBER | 18,493 | 140.10 | 7.58 | 1021.14 | 55.22 | 4.99 | 0.27 |
| TOTAL | 209581 | 1626.51 | | 13557.22 | | 56.96 | |
| AVERAGE | | 135.54 | 7.78 | 1129.77 | 64.66 | 4.75 | 0.27 |