The Corporation of the City of Kawartha Lakes

Council Report

Report Number WWW2017-003

Date: March 21, 2017 **Time:** 2:00 p.m.

Place: Council Chambers

Ward Community Identifier: All

Subject:

2016 Annual Waterworks Summary Report

Author/Title: Helega Milchin-Raposo, Contract Coordinator

Signature:

Recommendation(s):

RESOLVED THAT Report WWW2017-003, **2016 Annual Waterworks Summary Report** be received in accordance with reporting requirements of Ontario Regulation 170/03 Schedule 22 under the *Safe Drinking Water Act*, 2002 for the following Drinking Water Systems (DWS) owned by the City of Kawartha Lakes:

- Birchpoint Estates DWS
- Bobcaygeon DWS
- Canadiana Shores DWS
- Fenelon Falls DWS
- Janetville DWS
- Lindsay DWS
- Manilla DWS
- Manorview DWS
- Pinewood DWS
- Victoria Place DWS
- Sonya DWS

- King's Bay DWS
- Kinmount DWS
- Southview Estates DWS
- Mariposa Estates DWS
- Norland DWS
- Omemee DWS
- Pleasant Point DWS
- Woodfield DWS
- Woodville DWS
- Western Trent/Palmina DWS

| Department Head: | - Bill All |
|--------------------------------------|------------|
| Corporate Services Director / Other: | |
| Chief Administrative Officer: | 1/4 |
| | |

Background:

Section 11 and Schedule 22 of Ontario Regulation 170/03 under the Safe Drinking Water Act (SDWA) requires owners of Large and Small Municipal Drinking Water Systems to prepare two separate annual reports that include information on various aspects of the operations of the drinking water system(s) throughout the preceding calendar year.

Section 11 reports must contain a brief description of the drinking water system, including a list of water treatment chemicals used by the system during the reporting period. It must also contain a summary of all reports made to the Ministry of the Environment and Climate Change (MOECC) under section 16-4 of Schedule 16 of the regulation, for any other observations that require reporting other than adverse results that could possibly indicate improper disinfection. A description for all corrective actions taken during this period is also included in the report. The report includes a summary of all results from tests required in the regulation covering the reporting period including those test results from previous periods if testing was not required within the current reporting period. Section 11 reports are required to be made available to the public for viewing. These reports are published on the City's website and are made available through the Water and Wastewater Division and the Clerk's office upon request. They must be published on the website by February 28th of each following year.

Reports required under Schedule 22 of the regulation are required to be reported annually to Council not later than March 31st of the following year. The report must include a list of requirements of the Act, the regulations, the system's approval and any order that the system failed to meet at any time during reporting period and must include the duration of the failure. A description of the measures taken to correct the failures must also be included. This report includes information that can be used for the purpose of enabling the owner to assess the capability of the system in meeting existing and planned demands on the system. This type of information includes a summary of quantities, flow rates of water supplied, including monthly average, maximum daily flows and daily instantaneous peak flow rates. This information needs to be compared to the rated capacity and flow rates approved in the system's approval. A copy of the Schedule 22 reports for each of the City's 21 drinking water systems is attached to this report, is available for viewing at the clerk's office and is also available on the City's website.

Rationale:

The Ministry of the Environment and Climate Change (MOECC) conducts announced and unannounced inspections at the twenty-one (21) municipally owned Drinking Water Systems annually. The current reportable inspection cycle is from April 01, 2016 to March 31, 2017. Twenty (20) of the Water Treatment Plants are operated by Ontario Clean Water Agency (OCWA) with the Lindsay Water Treatment Plant being operated by City of Kawartha Lakes staff in the Water & Wastewater Division. The Water & Wastewater Division also operates all twenty-one (21) Water Distribution Systems.

The Ministry's Municipal Residential Drinking Water Inspection Protocol contains up to 14 inspection modules and consists of up to 120 regulatory questions. The questions address a wide range of regulatory issues, from administrative procedures to drinking water quality monitoring, source, distribution, record keeping and additionally the inspection protocol contains many other non-regulatory questions.

Every three years the Ministry reviews their risk rating methodology for inspections.

Key areas that the Ministry looks at when assessing compliance are: Capacity Assessment, Treatment Processes, Operations Manuals, Logbooks, Certification and Training, Water Quality Monitoring, Reporting & Corrective Actions and Treatment Process Monitoring. A score of less than 100% is not necessarily an indication that water was unsafe during the year. Percentage could be lost from a range of items such as documentation or reporting where water produced still met required parameters.

This staff report satisfies the requirements of Schedule 22 of O.Reg 170/03 under the SDWA. The summary table below (Table 1.) provides a year over year comparison of facility compliance inspection ratings given following the annual MOECC inspection.

The MOECC issued non-compliance's to 6 facilities that affected the CIR (Compliance Inspection Rating) score.

Any non-compliance received was minor in nature. It is important to note that all systems included in this report provided healthy and safe drinking water to the public throughout the year. The ratings are summarized below. All our drinking water systems received greater than 95%, the majority received a perfect score. This indicates our level of operation of the systems is close to exemplary.

Table 1. Summary for City of Kawartha Lakes Drinking Water Systems

| 21 Drinking Water Systems | Operating Authority | Compliance Rating (2016-2017) | Status as of March 2017 (Complete/ In progress) |
|------------------------------|---------------------|-------------------------------------|---|
| Birchpoint Estates | OCWA | *N/A | In progress |
| Bobcaygeon | OCWA | 100 % | Complete |
| Canadiana Shores | OCWA | 96.94 % | Complete |
| Fenelon Falls | OCWA | 100 % | Complete |
| Janetville | OCWA | 100 % | Complete |
| King's Bay | OCWA | 95.19 % | Complete |
| Kinmount | OCWA | 100 % | Complete |
| Lindsay | CKL | 98.54 % | Complete |
| Manilla | OCWA | 97.10 % | Complete |
| Manorview | OCWA | 100 % | Complete |
| Mariposa Estates | OCWA | 96.96 % | Complete |
| Norland | OCWA | 100 % | Complete |
| Omemee | OCWA | 100 % | Complete |
| Pinewood | OCWA | *N/A | In progress |
| Pleasant Point | OCWA | 100 % | Complete |
| Sonya | OCWA | 100 % | Complete |
| Southview | OCWA | 100 % | Complete |
| Victoria Place | OCWA | 96.67 % | Complete |
| Western Trent/Palmina | OCWA | 100 % | Complete |
| Woodfield | OCWA | 100 % | Complete |
| Woodville | OCWA | 100 % | Complete |
| | | | |

^{*}Note: The items noted "in progress" are currently being prepared by MOECC as of March 10th 2017

A summary of the non-compliances received during the 2016-2017 inspection period are listed below. All instances of non-compliance have been resolved to the satisfaction of the MOECC.

2016-2017 Non-Compliances:

Canadiana Shores DWS – Non-compliance was received due to non-recording of analyzer calibrations in the logbook or day sheets. Training and review was completed with staff.

Kings Bay DWS – Non-compliance was received for missing a residual sample in distribution. Training and review was completed with staff.

Lindsay DWS – Non-compliance for not recording/documenting all activities in the logbook and /or day sheets. Training and review was completed.

Manilla DWS – Non-compliance received for well observation, as it had a broken seal around the well cap. The seal was replaced, review completed with staff.

Mariposa Estates DWS – Non-compliance was received due to non-recording of analyzer calibrations in the logbook or day sheets. Training and review was completed with staff.

Victoria Place DWS – Non-compliance received for well observation, as it had a broken seal around the well cap. The seal was replaced, review completed with staff.

Included in the "Summary of Recommendations and Best Practice Issues" portion of the Fenelon Falls DWS inspection report was a recommendation to update the 2015 Fenelon Falls Section 11 Annual Report. There was a minor administrative error made under the Summary of Organic Parameters sampled with the exceedance column being marked No instead of Yes. All correct information was provided in the summary portion and all appropriate reporting was complete. As such the 2015 Section 11 annual report for Fenelon Falls DWS has been updated and is included in this report.

Other Alternatives Considered:

Not applicable as this is an information report required by legislation.

Financial Considerations:

There are no significant financial implications associated with this report

Relationship of Recommendation(s) To Strategy Map:

The 2016 Annual Waterworks Summary Report shows a commitment from the Water & Wastewater Division to protecting and enhancing water quality.

Review of Accessibility Implications of Any Development or Policy:

Not Applicable

Servicing Comments:

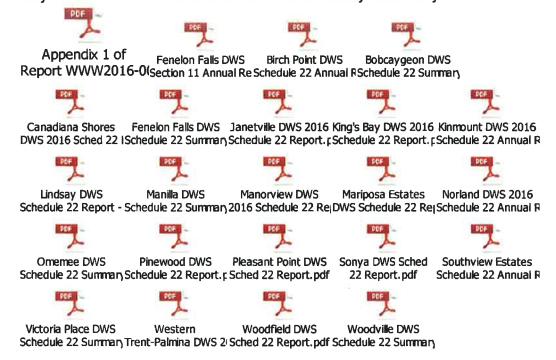
Not Applicable

Consultations:

- Ontario Clean Water Agency (OCWA)
- Bryan Robinson, Director of Public Works
- David Kerr, Manager Environmental Services
- Amber Hayter, Supervisor Water and Wastewater Operations

Attachments:

1. City of Kawartha Lakes Water Treatment Facility Summary



- A copy of the 2016 Annual Waterworks Summary Report for each Municipal Drinking Water System within the City of Kawartha Lakes will be available for review at the Clerk's Office as of March 1st, 2017.
- All annual Section 11 and Schedule 22 reports are also listed on the City website for the public, council and employees. http://www.city.kawarthalakes.on.ca/residents/water-and-wastewater/reports/annual-drinking-water-r

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Department Head: Bryan Robinson, Director of Public Works

Department File:

City of Kawartha Lakes Drinking Water System Summary 2015

| Drinking Water System | Ward | Source | Operating Authority |
|---------------------------|---------------|---------------------------------|---------------------|
| Birchpoint | 14 | Groundwater - two wells | OCWA |
| Bobcaygeon | 7 & 13 | Surface water - Big Bob Channel | OCWA |
| Canadiana Shores | 8 | Groundwater - three wells | OCWA |
| Fenelon Falls | 6 | Surface water - Cameron Lake | OCWA |
| Janetville | 16 | Groundwater - three wells | OCWA |
| King's Bay | 8 | Groundwater - three wells | OCWA |
| Kinmount | 3 | Surface water - Burnt River | OCWA |
| Lindsay | 9, 10, 11, 12 | Surface water - Scugog River | CKL |
| Manilla | 8 | Groundwater - two wells | OCWA |
| Manorview | 16 | Groundwater - two wells | OCWA |
| Mariposa Estates | 8 | Groundwater - two wells | OCWA |
| Noriand | 2 | Surface water - Gull River | OCWA |
| Omemee | 14 & 15 | Groundwater - two wells OCWA | |
| Pinewood | 16 | Groundwater - three wells OCW | |
| Pleasant Point | 8 | Groundwater - two wells | OCWA |
| Sonya Village Subdivision | 8 | Groundwater - two wells | OCWA |
| Southview Estates | 5 | Surface water - Sturgeon Lake | OCWA |
| Victoria Place | 13 | Groundwater - four wells | OCWA |
| Western Trent/Palmina | 1 | Groundwater - two wells | OCWA |
| Woodfield | 16 | Groundwater - two wells | OCWA |
| Woodville | 8 & 4 | Groundwater - three wells | OCWA |

Appendix # 1
to
Report # WWW 2016-002

SECTION 11 ANNUAL REPORT

Drinking-Water System Number: Drinking-Water System Name: Drinking-Water System Owner: Drinking-Water System Category:

Corporation of the City of Kawartha Lakes
Large Municipal Residential

210000327

Fenelon Falls DWS

Period being reported:

Large Municipal Residential
January 1, 2015 – December 31, 2015

Report amended on March 6, 2017 to update The Trihalomethanes (THMs) exceedance to 'Yes'.

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]

Is your annual report available to the public at no charge on a web site on the Internet?

Yes [X]

No []

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

City of Kawartha Lakes 12 Peel St. P.O Box 9000 Lindsay, ON K9V 5R8 www.city.kawarthalakes.on.ca

Complete for all other Categories.

Number of Designated Facilities served:

0

Did you provide a copy of your annual report to all Designated Facilities you serve?

Yes [] No [X]

Number of Interested Authorities you report to:

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No [X]

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

| Drinking Water System Name | Drinking Water System Number |
|-----------------------------------|------------------------------|
| | Not Applicable |

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 [] N/A [X]



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

| [X] 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: Sys | tem users identified via water bil |

Describe your Drinking-Water System

The Fenelon Falls Drinking Water System consists of the following:

- Raw water from Cameron Lake is obtained through a wooden intake crib and directed to the intake chamber and further to the low lift pumping station consisting of three low lift pumps
- Inlet line connected to sodium hypochlorite diffuser for seasonal zebra mussel control, if required
- Raw water flow meter and turbidity analyzer
- Coagulant injection system
- In-line static mixer (SternPac added upstream)
- Two inground flocculation tanks each equipped with 3 mechanical flocculators
- Dual train microfiltration system (Zeeweed) consisting of two compartments each containing two set of eight membrane modules
- Continuously monitoring particle counters and turbidity analyzers on each filter line
- Waste backwash holding tank with discharge to sanitary sewer
- Chlorine injection system
- Single inground clearwell (350m³) consisting of two interconnected baffled cells
- Inground dual celled high lift wet well (112m³) consisting of four highlift pumps
- Chlorine residual and pH analyzers prior to distribution connection
- Water tower (2,450m³)
- SCADA computer control system
- Standby power generator

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite Polyaluminum Chloride (PAC) Caustic Soda Citric Acid/Muriatic Acid



| Were | anv | significant | expenses | incurred | to? |
|------|-----|-------------|----------|----------|-----|
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| | | | | | | |

- [] Repair required equipment
- [x] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

- Replacement Zenon air separation tanks
- Replacement PLC card for Zenon panel
- Install speed control sample pump
- Replacement VFD
- Installation of new roller gate
- Replacement probes
- Replacement SternPAC pumps
- Replacement raw turbidimeter
- Replacement UPS

Provide 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 |
|------------------|--|--------|--------------------|---|------------------------------|
| Jan 5, 2015 | Fluid from actuator valve entered clearwell. | N/A | N/A | Immediately shut off highlift pumps and isolate highlift chamber from clearwell. Place oil absorbing pads in clearwell and used vac truck to drain clearwell until sheen no longer visible. Drain remaining water to sewers. Pressue washed highlift chamber with hot water from vac truck. Highlift chamber walls squeegeed, sprayed with superchlorinated water and allowed to sit for 35 minutes. Bacti, volatile and hydrocarbon samples collected. | Jan 6, 2015 |

| Incident Date | Parameter | Result | Unit of Measure | Corrective Action | Corrective Action Date |
|--|-----------------------------|---|--------------------|--|------------------------------|
| Jan 21, 2015 Resample AWQI Jan 27, 2015 | Trihalomethanes (THMs) | 120 Annual Average (Single sample result 114) | mg/L | Flushed distribution system and resampled at both original location and comparison location. Adjustments made to filtration system to better reduce organics. Original sample location resample result 106 mg/L, comparison location result 79 mg/L. | Jan 27, 2015 |
| Mar 2, 2015 | Improper coagulation dosage | Unknown | mg/L | Improper coagulant dosage after pump rotation. Return to original pump, ensure pumps are dosing, change injector quill. Collect bacti samples. | Mar 5, 2015 |
| Apr 14, 2015 | Trihalomethanes (THMs) | 104 Annual Average (Single sample result 66) | mg/L | Distribution flushed and resampled. | Apr 22, 2015 |
| Jul 30, 2015 | Trihalomethanes (THMs) | 120 Annual Average (Single sample result 198) | mg/L | Sample location flushed and resampled. Changes made to slow mix settings to achieve greater mixing/better floc. Changes made to reject pumps settings to remove more solids before filter startup. | Aug 5, 2015 |
| Oct 13, 2015 | (THMs) | Annual Average (Single sample result 85) | mg/L | Sample location flushed and resampled. | Oct 16, 2015 |

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

| | | Range of | Range of | Number | Range of |
|--------------|---------|-----------------|-----------------|---------|-----------------|
| | Number | E.Coli | Total Coliform | of | HPC |
| | of | Results | Results | HPC | Results |
| Location | Samples | (min #)-(max #) | (min #)-(max #) | Samples | (min #)-(max #) |
| Raw | 52 | 0 - 32 | 1 - 171 | 0 | N/A |
| Treated | 53 | 0 - 0 | 0 - 0 | 53 | 0 - 440 |
| Distribution | 157 | 0 - 0 | 0 - 0 | 154 | 0 - 2 |

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the

period covered by this Annual Report.

| periou covereu b | Number | Range of Results |
|------------------|---------|-------------------|
| | of Grab | (min #)-(max #) |
| | Samples | |
| Turbidity | 8760 | 0.00 - 2.47 NTU |
| Filter 1 | | |
| Turbidity | 8760 | 0.00 - 2.51 NTU |
| Filter 2 | | |
| Chlorine - | 8760 | 0.0 - 5.0 mg/L |
| Treated | | |
| Distribution | 7/week | 0.11 - 2.13 mg/L |
| Chlorine | minimum | |
| Fluoride | N/A | N/A |
| (DWS does not | | |
| provide | | |
| fluoridation) | | |

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

NOTE: Record the unit of measure if it is not milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the

requirement of an approval, order or other legal instrument.

| Date of legal | Parameter | Date | Result | Unit of |
|------------------------------|--|-----------------------------------|---------------|---------|
| instrument issued | | Sampled | | Measure |
| MDWL # 141-104 | Backwash Suspended Solids | Monthly | See Attached | mg/L |
| Additional (Not Required) | Cyanobacteria (ELISA for microsystins) - Raw | Jun 4/15 – Oct 26/15 Weekly | <0.05 - 0.08 | mg/L |
| Additional (Not Required) | Cyanobacteria (ELISA for microsystins) - Treated | Jun 4/15 – Oct 26/15 Weekly | <0.05 - <0.05 | mg/L |

* The filter backwash water normally discharges to the sanitary sewers and in the case of a system failure the filter backwash water will overflow into Cameron Lake. Suspended Solids discharging into the natural environment are limited to an annual average of 25 mg/L. The backwash water discharged to the sanitary sewers in 2015.

Summary of Inorganic parameters tested during this reporting period or the most

recent sample results

| Parameter | Sample Date | Result Value | Exceedance |
|---|--------------|--|------------|
| See attached Annual Summary Schedule 23 and Additional Inorganics | See Attached | See attached Schedule 23 and Additional Inorganics | No |

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#) – (max #) | Number of Exceedances |
|---------------|----------------------|--|------------------------------|
| Plumbing | 0 | N/A | 0 |
| Distribution | 2 | 0.01 - 0.17 | 0 |

Summary of Organic parameters sampled during this reporting period or the most

recent sample results

| Parameter | Sample Date | Result Value | Exceedance |
|------------------------|--------------|-------------------------|------------|
| See attached Annual | See Attached | See attached Annual | |
| Summary - Schedule 24 | See Attached | Summary – Schedule 24 | No |
| | Jan 19, 2015 | | |
| Trihalomethanes (THMs) | Apr 14, 2015 | 118.25 | Vas |
| (ug/L) | Jul 27, 2015 | Annual running average* | Yes |
| | Oct 6, 2016 | | |

^{*118.25} ug/L is the annual average determined by using the highest THM result in each quarter. The method of calculating the annual average of THMs changed on January 1, 2016 and updated method will be used in the 2016 annual report.

List any 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 |
|-----------|--------------|-----------------|----------------|
| THM | 118.25 | ug/L | Annual Average |

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

Attachments follow

Drinking-Water System Number:

210000327

Drinking-Water System Name:

FENELON FALLS DRINKING WATER SYSTEM

Drinking-Water System Owner:
Drinking-Water System Category:

Title Holder: Municipality Large Municipal Residential

Period being reported:

01/2015

12/2015

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

| | Sample Date (mm/dd/yyyy) | Sample Result | MAC | No. of Exceedances | | |
|--------------------------|-----------------------------|---------------|--------|--------------------|---------|--|
| TREATED WATER | | | | MAC | 1/2 MAC | |
| Antimony: Sb (ug/L) - TW | 1/19/2015 | 0.03 | 6.0 | No | No | |
| Arsenic: As (ug/L) - TW | 1/19/2015 | < 0.2 | 25.0 | No | No | |
| Barium: Ba (ug/L) - TW | 1/19/2015 | 19.8 | 1000.0 | No | No | |
| Boron: B (ug/L) - TW | 1/19/2015 | 7.8 | 5000.0 | No | No | |
| Cadmium: Cd (ug/L) - TW | 1/19/2015 | < 0.003 | 5.0 | No | No | |
| Chromium: Cr (ug/L) - TW | 1/19/2015 | 0.06 | 50.0 | No | No | |
| Mercury: Hg (ug/L) - TW | 1/19/2015 | 0.02 | 1.0 | No | No | |
| Selenium: Se (ug/L) - TW | 1/19/2015 | < 1.0 | 10.0 | No | No | |
| Uranium: U (ug/L) - TW | 1/19/2015 | 0.049 | 20.0 | No | No | |
| Additional Inorganics | | | | | | |
| Fluoride (mg/L) - TW | 1/24/2013 | < 0.06 | 1.5 | No | No | |
| Nitrite (mg/L) - TW | 1/19/2015 | < 0.003 | 1.0 | No | No | |
| Nitrite (mg/L) - TW | 4/7/2015 | < 0.003 | 1.0 | No | No | |
| Nitrite (mg/L) - TW | 7/27/2015 | < 0.003 | 1.0 | No | No | |
| Nitrite (mg/L) - TW | 10/6/2015 | < 0.003 | 1.0 | No | No | |
| Nitrate (mg/L) - TW | 1/19/2015 | 0.086 | 10.0 | No | No | |
| Nitrate (mg/L) - TW | 4/7/2015 | 0.153 | 10.0 | No | No | |
| Nitrate (mg/L) - TW | 7/27/2015 | 0.021 | 10.0 | No | No | |
| Nitrate (mg/L) - TW | 10/6/2015 | 0.031 | 10.0 | No | No | |
| Sodium: Na (mg/L) - TW | 1/24/2013 | 7.44 | 20* | No | No | |

^{*}There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

Drinking-Water System Number: Drinking-Water System Name: 210000327

FENELON FALLS DRINKING WATER SYSTEM

Drinking-Water System Owner:
Drinking-Water System Category:

Title Holder: Municipality Large Municipal Residential

Period being reported:

01/2015

12/2015

Summary of Organic parameters sampled during this reporting period or the most recent sample results

| | Sample Date (mm/dd/yyyy) | Sample Result | MAC | | ber of dances |
|---|-----------------------------|---------------|--------|-----|------------------|
| TREATED WATER | (,, , , , , , , , | | | MAC | 1/2 MAC |
| Alachlor (ug/L) - TW | 1/19/2015 | < 0.02 | 5.00 | No | No |
| Aldicarb (ug/L) - TW | 1/19/2015 | < 0.01 | 9.00 | No | No |
| Aldrin+Dieldrin (ug/L) - TW | 1/19/2015 | < 0.01 | 0.70 | No | No |
| Atrazine + N-dealkylated metabolites (ug/L) - TW | 1/19/2015 | < 0.01 | 5.00 | No | No |
| Azinphos-methyl (ug/L) - TW | 1/19/2015 | < 0.02 | 20.00 | No | No |
| Bendiocarb (ug/L) - TW | 1/19/2015 | < 0.01 | 40.00 | No | No |
| Benzene (ug/L) - TW | 1/19/2015 | < 0.32 | 5.00 | Νo | No |
| Benzo(a)pyrene (ug/L) - TW | 1/19/2015 | < 0.004 | 0.01 | No | No |
| Bromoxynil (ug/L) - TW | 1/19/2015 | < 0.33 | 5.00 | No | No |
| Carbaryl (ug/L) - TW | 1/19/2015 | < 0.01 | 90.00 | No | No |
| Carbofuran (ug/L) - TW | 1/19/2015 | < 0.01 | 90.00 | No | No |
| Carbon Tetrachloride (ug/L) - TW | 1/19/2015 | < 0.16 | 5.00 | No | No |
| Chlordane: Total (ug/L) - TW | 1/19/2015 | < 0.01 | 7.00 | No | No |
| Chlorpyrifos (ug/L) - TW | 1/19/2015 | < 0.02 | 90.00 | No | No |
| Cyanazine (ug/L) - TW | 1/19/2015 | < 0.03 | 10.00 | No | No |
| Diazinon (ug/L) - TW | 1/19/2015 | < 0.02 | 20.00 | No | No |
| Dicamba (ug/L) - TW | 1/19/2015 | < 0.2 | 120.00 | No | No |
| 1,2-Dichlorobenzene (ug/L) - TW | 1/19/2015 | < 0.41 | 200.00 | No | No |
| 1,4-Dichlorobenzene (ug/L) - TW | 1/19/2015 | < 0.36 | 5.00 | No | No |
| DDT + metabolites (ug/L) - TW | 1/19/2015 | < 0.01 | 30.00 | No | No |
| 1,2-Dichloroethane (ug/L) - TW | 1/19/2015 | < 0.35 | 5.00 | No | No |
| 1,1-Dichloroethylene (ug/L) - TW | 1/19/2015 | < 0.33 | 14.00 | No | No |
| Dichloromethane (Methylene Chloride) (ug/L) - TW | 1/19/2015 | < 0.35 | 50.00 | No | No |
| 2,4-Dichlorophenol (ug/L) - TW | 1/19/2015 | < 0.15 | 900.00 | No | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW | 1/19/2015 | < 0.19 | 100.00 | No | No |
| Diclofop-methyl (ug/L) - TW | 1/19/2015 | < 0.4 | 9.00 | No | No |
| Dimethoate (ug/L) - TW | 1/19/2015 | < 0.03 | 20.00 | No | No |
| Dinoseb (ug/L) - TW | 1/19/2015 | < 0.36 | 10.00 | No | No |
| Diquat (ug/L) - TW | 1/19/2015 | < 1.0 | 70.00 | No | No |
| Diuron (ug/L) - TW | 1/19/2015 | < 0.03 | 150.00 | No | No |
| Glyphosate (ug/L) - TW | 1/19/2015 | < 1.0 | 280.00 | No | No |
| Heptachlor+hepachlor epoxide (ug/L) - TW | 1/19/2015 | < 0.01 | 3.00 | No | No |
| Lindane (ug/L) - TW | 1/19/2015 | < 0.01 | 4.00 | No | No |
| Malathion (ug/L) - TW | 1/19/2015 | < 0.02 | 190.00 | No | No |
| Methoxychlor (ug/L) - TW | 1/19/2015 | < 0.01 | 900.00 | No | No |
| Metolachlor (ug/L) - TW | 1/19/2015 | < 0.01 | 50.00 | No | No |
| Metribuzin (ug/L) - TW | 1/19/2015 | < 0.02 | 80.00 | No | No |
| Monochlorobenzene (Chlorobenzene) (ug/L) - TW | 1/19/2015 | < 0.3 | 80.00 | No | No |
| Paraquat (ug/L) - TW | 1/19/2015 | < 1.0 | 10.00 | No | No |
| Parathion (ug/L) - TW | 1/19/2015 | < 0.02 | 50.00 | No | No |
| PCB (ug/L) - TW | 1/19/2015 | < 0.04 | 3.00 | No | No |
| Pentachlorophenol (ug/L) - TW | 1/19/2015 | < 0.15 | 60.00 | No | No |
| Phorate (ug/L) - TW | 1/19/2015 | < 0.01 | 2.00 | No | No |
| Picloram (ug/L) - TW | 1/19/2015 | < 1.0 | | No | No |

| | Sample Date (mm/dd/yyyy) | Sample Result | MAC | | nber of edances |
|---------------------------------------|-----------------------------|---------------|--------|-----|--------------------|
| TREATED WATER | | | | MAC | 1/2 MAC |
| Prometryne (ug/L) - TW | 1/19/2015 | < 0.03 | 1.00 | No | No |
| Simazine (ug/L) - TW | 1/19/2015 | < 0.01 | 10.00 | No | No |
| Temephos (ug/L) - TW | 1/19/2015 | < 0.01 | 280.00 | No | No |
| Terbufos (ug/L) - TW | 1/19/2015 | < 0.01 | 1.00 | No | No |
| Tetrachloroethylene (ug/L) - TW | 1/19/2015 | < 0.35 | 30.00 | No | No |
| 2,3,4,6-Tetrachlorophenol (ug/L) - TW | 1/19/2015 | < 0.2 | 100.00 | No | No |
| Triallate (ug/L) - TW | 1/19/2015 | < 0.01 | 230.00 | No | No |
| Trichloroethylene (ug/L) - TW | 1/19/2015 | < 0.44 | 50.00 | No | No |
| 2,4,6-Trichlorophenol (ug/L) - TW | 1/19/2015 | < 0.25 | 5.00 | No | No |
| 2,4,5-T (ug/L) - TW | 1/19/2015 | < 0.22 | 280.00 | No | No |
| Trifluralin (ug/L) - TW | 1/19/2015 | < 0.02 | 45.00 | No | No |
| Vinyl Chloride (ug/L) - TW | 1/19/2015 | < 0.17 | 2.00 | No | No |

Ontario Clean Water Agency Time Series Info Report

From: 01/01/2015 to 31/12/2015

Facility Org Number:

5998

Facility Works Number:

210000327

Facility Name:

FENELON FALLS DRINKING WATER SYSTEM

Facility Owner:

Municipality: City of Kawartha Lakes

Facility Classification:

Class 2 Water Treatment

Receiver:

Service Population:

1806

- ---

Total Design Capacity:

4100.0 m3/day

| | 01/2015 | 02/2015 | 03/2015 | 04/2015 | 05/2015 | 06/2015 | 07/2015 | 08/2015 | 09/2015 | 10/2015 | 11/2015 | 12/2015 | Avg |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| FBW / Total Suspended Solids: TSS - mg/L | | | | | | | | | | | | | |
| Mean Lab | 682 | 45 | 31 | 32 | 20 | 24 | 23 | 23 | 23 | 27 | 32 | 28 | 82.5 |



February 17, 2017

Ms. Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON
K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Birch Point DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Birch Point DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

This report is a summary of water quality information for the Birch Point DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Birch Point DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act*, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|--|--|--|--|
| Safe Drinking Water Act | No failures to report | 2 | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Treated chlorine analyzer inconsistent readings. Analyzer 1.56 Handheld 0.95 | July 11, 2016 | Dose clearwells with chlorine, change electrolyte in chlorine probes, confirm online analyzer reading with handheld analyzer | Complete |
| Permit to Take Water 7340-7FZNF7 | No failures to report | | | 4. |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|--|--|--|
| Municipal Drinking Water Licence | No failures to report | | | |
| 141-109 | | | | |
| Drinking Water Works Permit | No failures to report | | | |
| 141-209 | | | | |
| Provincial Officer's Order No. | No failures to report | | | |

The 2016/2017 Ministry of the Environment and Climate Change Compliance Inspection Report had not yet been received by the Ontario Clean Water Agency by February 17, 2017. As a result, any compliance issues that may be identified as part of the Compliance Inspection cannot be included in this summary report.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Please find attached reports for the Birch Point DWS which contain all required flow information.

Note: Well 4 was not in service in 2016 and Well 5 was periodically in service throughout 2016.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Ontario Clean Waler Agency Ferformance Assessment Report Water

From: 61/01/2016 to 31/12/2016

Facility: [1288] BIRCH POINT DRINKING WATER SYSTEM
Works: [1288] BIRCH POINT DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2018 | 09/2016 | 10/2018 | 11/2016 | 12/2016 | ←Total-> | €-Aug> | doMgx →> | fullin.→ | <-Criteriu→ |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--------|---------------------------------|------------------------------|-------------|
| Flows: | | | | | | | | | | | | | | | | | 2 2 2 |
| Raw Flow: Monthly Total - Well 3 (m*) | 2040.04 | 1960:59 | 2175.16 | 2193.42 | 2256.64 | 1909.45 | 1973.51 | 2722.25 | 2626,65 | 2678.75 | 2444 38 | 2515 97 | 27496.81 | | | | |
| Raw Fixw: Monthly Total - Well 4 (m²) | 0 | 0 | 0 | 0.03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.03 | | | | |
| Raw Flow: Monthly Total - Well 5 (m²) | 0 | 0 | 0 | 0 | 326.95 | 1022.77 | 407.22 | 0 | 0.46 | 0 | 0 | 0 | 1757.4 | | | | |
| Raw Flow: Monthly Avg - Well 3 (m*ld) | 65.81 | 67.61 | 70 17 | 73.11 | 72.79 | 63.65 | 63.65 | 87.81 | 87.56 | 86 41 | 81.48 | 81 16 | | 75.1 | | | |
| Raw Flow: Monthly Avg - Well 4 (m1ld) | 0 | 0 | 0 | 0 | 0 | . 0 | 0 | 0 | 0 | .0 | 0 | 0 | | 0 | | | |
| Raw Flow: Monthly Avg - Well 5 (m*id) | 0 | 0 | 0 | 0 | 10.56 | 34.09 | 13.14 | 0 | 0.02 | 0 | 0 | 0 | | 4.82 | | | |
| Raw Flow: Monthly Max - Well 3 (m?d) | 81.89 | 97.9 | 82.67 | 87.18 | 113.4 | 139.89 | 104.95 | 105.55 | 106.95 | 103.81 | 101 87 | 100.71 | | | 139 89 | | 194.4 |
| Raw Flow: Monthly Max - Well 4 (m*id) | 0 | 0 | 0 | 0.03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0.03 | | 165.6 |
| Raw Flow: Monthly Max - Well 5 (m*ld) | 0 | 0 | 0 | 0 | 56.91 | 91.49 | 71.13 | 0 | 0.23 | .0 | 0 | 0 | | | 91.49 | | 131,04 |
| Treated Flow: Monthly Total - TW (m²) | 2195.31 | 2107.9 | 2358.7 | 2392,36 | 2806.92 | 3155.27 | 2597,75 | 2953.56 | 2814.84 | 2940.39 | 2647.57 | 2716.35 | 31687.05 | | - 3 | | |
| Treated Flow: Monthly Avg - TW (m*ld) | 70.62 | 72.69 | 76 09 | 79.75 | 90.55 | 10518 | 83.6 | 95.28 | 93.83 | 94.85 | 88.25 | 87.62 | | 86.56 | | | |
| Treated Flow; Monthly Max - TW (m/d) | 87.82 | 83.89 | 86.49 | 93.31 | 129.07 | 156.0 | 112.78 | 111.12 | 110.22 | 107.83 | 105.67 | 98.85 | | | 156.8 | | 300 |
| Raw Firm: Monthly Total - RW Total All Sources (m*) | 2040.04 | 1980.59 | 2175.16 | 2193.42 | 2256.64 | 2902 22 | 2380.73 | 2722.25 | 2627.11 | 2676.75 | 2444.38 | 2515.97 | 28927.28 | | | | |
| Raw Flow: Monthly Avg - RW Total All Sources (m*id) | 15.81 | 67.01 | 70 17 | 73.11 | 72.79 | 97,74 | 76.8 | 87.81 | 07.57 | 86.41 | 81.48 | 81.16 | | 79.04 | | | |
| Raw Flow: Monthly Max - RW Total All Sources (m1/d) | 81.89 | 97.9 | 82.57 | 87.16 | 112.4 | 154 33 | 104.95 | 105.55 | 106.95 | 103.81 | 101.87 | 100.71 | | | 154.33 | | 360 |
| Turbidity: | | | | | | | | | | - | | | | | | | 9 1 |
| Raw: Max Turbidity - Well 3 (NTU) | 0.23 | 0.25 | 0.19 | 0.69 | 0.51 | 0.13 | 0.18 | 0.2 | 0.47 | 0.31 | 0.17 | 0.1 | | | 0.69 | | |
| Raw: Max Turbidity - Well 5 (NTU) | | | | 10.4 | 0.67 | 0.15 | 0.2 | 0.20 | 0.56 | 0.36 | 1.96 | 1.43 | | | 10-4 | | 3 1 - 3 |
| Treated: Min Turbidity - TW (NTU) | 0.03 | 0,03 | 0.03 | 0 | 0.03 | 0.03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| Treated: Max Turbidity - TW (NTU) | 0.54 | 0.11 | 0.11 | 2 | 1.33 | 2.90 | 3.40 | 0.15 | 5 | 4.92 | 4.9 | - 5 | 5 | | 5 | | |
| Chemical Parameters: | | | | | | | | | | | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | < 0.002 | | | < 0.003 | | | | | € 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 257 | | | 2.48 | | | 1.64 | | | 2.36 | | | | | 2.57 | | 10 |
| Distribution: Max THM - DW (pg/l) | 17 | | | 15 | | | 34 | | | 20 | | | | | 34 | | 100 |
| Chlorine Residuals: | | | | | | | | | | | | | 1 | | | | |
| Treated: Min Free CI2 Reald - TW (mg/L) | 1.54 | 1.4 | 1.95 | 1.01 | 1,42 | 1.36 | 0 | 1.43 | 1 | 1.29 | 1.44 | 0 | | | | 0 | 11 10 10 10 |
| Treated: Max Free Ct2 Resid - TW (mg/L) | 1.78 | 1.74 | 1.51 | 1.86 | 1.84 | 2 17 | 3.63 | 1.8 | 1.85 | 1.68 | 1.0 | 1.93 | | | 3.63 | | |
| Dist: Min Free Ci2 Resid - DW (mg/L) | 1,44 | 0 | 0 | 0 | a | 0.99 | 1.04 | 1.08 | 0.73 | 1.1 | 1.31 | 0 | | | | 0 | 0.05 |
| Dist: Max Free CI2 Resid - DW (mg/L) | 1.67 | 4.99 | 4.94 | 1.71 | 1.89 | 1 84 | 1,6 | 1.49 | 2.59 | 1.44 | 2.28 | 1.76 | | | 4.99 | | |
| Bacti Samples Collected: | | | | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - Well 3 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | | 4 | 52 | | | | |
| Raw Bacti: # of samples - Well 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | | | |
| Raw Bacti: # of samples - Well 5 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 5 | 4 | 5 | 4 | 4 | 28 | | | | |
| Treated Bacti: #cf samples +TW | 4 | 5 | 4 | - 4 | 5 | 4 | 4 | - 5 | 4 | 5 | 4 | 4 | 52 | | | | |
| Dist Bacti: # of samples - DW | 12 | 15 | 12 | 12 | 15 | 12 | 12 | 15 | 12 | 15 | 12 | 12 | 156 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .0 | 0 | 0. | 0 | 0 | 0 | | | | |
| Treated Bacti: # of EC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | . 0 | 0 | 0 | 0 | | | | |

Well 3 Flow Summary

Drinking-Water System Number: 220012572

Drinking-Water System Name: BIRCH POINT DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-109

Period being reported: 01/2016 - 12/2016

Raw Water (Source Name) Well 3
Source Type: Drilled

Drinking Water Permit to Take Water No: 7147-9Y7HWV

| | | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|--------------------|------------|------------|--------------|----------------|
| Month | Monthly Flow Total | Average | Maximum | Average Flow | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 2040.04 | 65.81 | 81.89 | 0.76 | 1.89 |
| Feb | 1960.59 | 67.61 | 97.90 | 0.78 | 2.36 |
| Mar | 2175.16 | 70.17 | 82.67 | 0.81 | 1.64 |
| Apr | 2193.42 | 73.11 | 87.18 | 0.85 | 1.44 |
| May | 2256.64 | 72.79 | 113.40 | 0.84 | 1.55 |
| Jun | 1909.45 | 63.65 | 139.89 | 0.73 | 2.20 |
| Jul | 1973.51 | 63.66 | 104.95 | 0.74 | 1.64 |
| Aug | 2722.25 | 87.81 | 105.55 | 1.02 | 1.58 |
| Sep | 2626.65 | 87.56 | 106.95 | 1.01 | 4.19 |
| Oct | 2678.75 | 86.41 | 103.81 | 1.02 | 1.54 |
| Nov | 2444.38 | 81.48 | 101.87 | 0.94 | 1.54 |
| Dec | 2515.97 | 81.16 | 100.71 | 0.94 | 1.53 |
| Total | 27496.81 | | | ** | |
| Avg | 2291.40 | 75.10 | * | 0.87 | 720 |
| Max | 2722.25 | | 139.89 | | 4.19 |
| Criteria | === | | 194.40 | 22 | 2.25 |

Well 4 Flow Summary

Drinking-Water System Number: 220012572

Drinking-Water System Name: BIRCH POINT DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-109

Period being reported: 01/2016 - 12/2016 12/2016

Raw Water (Source Name)Well 4Source Type:DrilledDrinking Water Permit to Take Water No:7340-7FZNF7

| | Banathh Flour Total | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|---------------------|------------|------------|--------------|----------------|
| Month | Monthly Flow Total | Average | Maximum | Average Flow | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Feb | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mar | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Apr | 0.03 | 0.00 | 0.03 | 0.00 | 0.00 |
| May | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jun | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jul | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Aug | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sep | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oct | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Nov | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dec | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 0.03 | | | - | |
| Avg | 0.00 | 0.00 | = | 0.00 | |
| Max | 0.03 | 122 | 0.03 | 2002 | 0.00 |
| Criteria | | | 165.60 | - | 1.91 |

Well 5 Flow Summary

Drinking-Water System Number:

220012572

Drinking-Water System Name:

BIRCH POINT DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-109

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

Well 5

Source Type:

Drilled

Drinking Water Permit to Take Water No:

7147-9Y7HWV

| | Banthly Flour Total | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|---------------------|-------------|------------|-------------------|----------------|
| Month | Monthly Flow Total | Average | Maximum | Peak Flow Rate | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | (L/min) | (L/sec) |
| Jan | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Feb | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mar | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Apr | 0.00 | 0.00 | 0.00 | 0.00 | 2.89 |
| May | 326.95 | 10.55 | 56.91 | 0.12 | 6.18 |
| Jun | 1022.77 | 34.09 | 91.49 | 0.40 | 6.62 |
| lul | 407.22 | 13.14 | 71.13 | 0.15 | 2.02 |
| Aug | 0.00 | 0.00 | 0.00 | 0.00 | 1.83 |
| Sep | 0.46 | 0.02 | 0.23 | 0.00 | 6.00 |
| Oct | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Nov | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dec | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 1757.40 | | | 1 41 2 | .== |
| Avg | 146.45 | 4.82 | 251 | 0.06 | 522 |
| Max | 1022.77 | :== | 91.49 | . | 6.62 |
| Criteria | 227 | 94 2 | 131.04 | S##5: | 1.51 |



February 17, 2017

Ms. Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON
K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Bobcaygeon DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Bobcaygeon DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

This report is a summary of water quality information for the Bobcaygeon DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Bobcaygeon DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Monthly filter performance criteria | January 2016 Reported February 1, 2016 | Filter 1 was out of service for remediation. Filter 1 was put back in service on January 21, 2016. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Monthly filter performance criteria | February 2016 Reported March 1, 2016 | Filter 2 was taken offline on February 3, 2016 for remediation leaving Filter 1 as the sole online filter. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | High treated total chlorine | March 16 – 17, 2016 | Reduced chlorine dosage | Complete |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Monthly filter performance criteria | March 2016 Reported April 4, 2016 | Filter 1 was <0.3NTU 71% of the time the filter was in production and Filter 2 was <0.3 NTU 84%. Filter 1 was sole online filter March 1 – 29 and filter 2 was sole online filter March 29 – 31, 2016. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Monthly filter performance criteria | April 2016 Reported May 3, 2016 | Filter 1 was <0.3NTU 70% of the time the filter was in production in April 2016. Combined, Filters 1 and 2 were <0.3NTU 84.5% of the time the filters were in production. Filter rehabilitation continued in April 2016. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Monthly filter performance criteria | May 2016 Reported June 3, 2016 | Filter 2 was shut off May 2, 2016 due to media loss. Filter 2 was repaired and put back into service May 23, 2016. Filter 2 met the performance criteria May 23 – 31, 2016 but overall the monthly performance criteria was 94%. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | High treated total chlorine | June 12 - 13, 2016 | Adjust settings on tower to allow chlorine to be retained longer at the plant. Decrease chlorine dosage on chlorine pumps. | Complete |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|---|--|
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Loss of coagulant | July 14, 2016 | Coagulant pump was stopped. Plant was shut down and clarifiers were drained. Clarifiers refilled ensuring the coagulant pumps were operating. Monitored clearwell 1 process chlorine analyzer and dosed clearwell when chlorine dropped. Clearwells 1 – 4 were dosed with chlorine as a precaution. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | High treated total chlorine | July 14 – 15, 2016 | After the loss of coagulant the clearwells were dosed as a precaution (lowest free chlorine residual in clearwell 1 was 0.63 mg/L). The dosing of the clearwells caused the total chlorine residual to rise above 3.0 mg/L. Reduced the ammonium sulphate pumps max cap. Monitor chlorine residuals in all clearwells and distribution. | Complete |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Permit to Take Water 6837-7JCP2G | No failures to report | | | |
| Municipal Drinking Water Licence 141-112 | No failures to report | | | |
| Drinking Water Works Permit 141-212 | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Please find attached reports for the Bobcaygeon DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Ontario Clean Water Agency Performance Assessment Report Water

Econo

01/01/2016 to 31/12/2016

Facility: [5779] BOBCAYGEON DRINKING WATER SYSTEM
Works: [5779] BOBCAYGEON DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total→ | <avg></avg> | C.May.co | cuMin => | Criteria→ |
|---|---------|---------|----------|---------|---------|----------|----------|---------|----------|----------|----------|----------|-----------|-------------|----------|----------|-------------------------------|
| Flows: | | | | | | | | | | | | | | | | | |
| Raw Flow: Monthly Total - RW (m*) | 68576 | 57987 | 66808.65 | 66847 | 80262 | 85497,79 | 88032.66 | 88183 | 75912.5 | 66327.71 | 61162.26 | 53454.55 | 867051 12 | | | | |
| Raw Flow: Monthly Avg - RW (m*/d) | 2212.13 | 1999.55 | 2155.12 | 2228 23 | 2589.1 | 2849.93 | 2839.76 | 2780.1 | 2530.42 | 2139.6 | 2038.74 | 2046.92 | | 2367.47 | | | |
| Raw Flow; Monthly Max - RW (mVd) | 2821 | 2093 | 2744 | 2844 | 3588 | 3588 | 3393 | 3383 | 2973 | 2562 | 2187 | 2182 | | 1 | 3588 | | 5184 |
| Treated Flow: Monthly Total - TW (m*) | 54299 | 45713 | 50811.21 | 52444 | 65039 | 70807.74 | 72748.59 | 71376 | 62686.27 | 54668.54 | 51832.16 | 54824.12 | 707049.63 | | | | |
| Treated Flow: Monthly Avg - TW (m²/d) | 1751.58 | 1576 31 | 1639 07 | 1748 13 | 2098.03 | 2353.59 | 2346.73 | 2302.45 | 2089.54 | 1763.5 | 1727.74 | 1768.52 | | 1930.43 | | | |
| Treated Flow: Monthly Max - TW (m²/d) | 2100 | 1767 | 1830 | 2110 | 2997 | 3233 | 2885 | 2762 | 2547 | 2151 | 1897 | 1928 | | | 3233 | | 5184 |
| Turbidity: | | | | | | | | | | | | | | | | | |
| Raw: Max Turbicity - RW (NTU) | 1.68 | 0.66 | 1.65 | 1.13 | 0.94 | 1.52 | 1.64 | 1.86 | 3 52 | 1.14 | 0.9 | 1,76 | | | 3.52 | | |
| Treated: Min Turbidity - TW (NTU) | 0.09 | 0.3 | 0.3 | 0.031 | 0,18 | 017 | 0.15 | 0.15 | 0.11 | 0.12 | 0.09 | 0.1 | | | | 0.031 | |
| Treated: Max Turbidity - TW (NTU) | 0.27 | 14 | 0.34 | 0.32 | 0.19 | 0.2 | 0.16 | 0.18 | 0.16 | 0.13 | 0.1 | 0.12 | | | 14 | | |
| Filter Eff: Min Turbidity - Filt1 (NTU) | 0.02 | 0.03 | 0.04 | 0.02 | 0.02 | 0.003 | 0.03 | 0.04 | 0.02 | 0.02 | 0.02 | 0.03 | | | | 0.003 | |
| Filter Eff: Min Turbidity - Filt2 (NTU) | 0 | 0.05 | 0.04 | 0.03 | 0.04 | 0.06 | 0.03 | 0.03 | 0.05 | 0.03 | 0.03 | 0.04 | | | | 0 | |
| Filter Eff: Max Turbidity - Filt1 (NTU) | 0.84 | 0.75 | 0.67 | 0.47 | 0.7 | 0.17 | 1.89 | 0.21 | 0.21 | 0.18 | 0.16 | 0.2 | | | 1.89 | | 1 |
| Filter Eff: Max Turbidity - Fitt2 (NTU) | 2 | 1,45 | 2 | 0.96 | 0.6 | 0.47 | 2 | 0.14 | 0.12 | 0.36 | 0.09 | 0.23 | | | 2 | | 1 |
| Chemical Parameters: | | | | | | | | | | | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | 0.003 | | | < 0.003 | | | < 0.003 | | | | | 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 0.15 | | | 0.286 | | | 0.015 | | | 0.016 | | | | | 0.266 | | 10 |
| Distribution: Max THM - DW (pg/l) | 46 | | | 31 | | | 59 | | | 40 | | | | | 59 | | 100 |
| Chlorine Residuals: | | | | | | | | | | | 31 | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 0 | 1,66 | 0 | 1.35 | 1.48 | 1.49 | 0 | 0 | 1.58 | 0 | 0 | 1.29 | | | | 0 | |
| Treated: Max Free CIZ Resid - TW (mg/L) | 5 | 2.55 | 2 63 | 2.61 | 2.23 | 2 59 | 5.85 | 6.25 | 214 | 3.54 | 624 | 2.03 | | | 6.25 | | |
| Dist: Min Free C/2 Resid - DW (mg/L) | 0 | 0 | 0.02 | 0.01 | 0 | 0 | 0 | 0.02 | 0.01 | 0 | 0.04 | 0.01 | | | | 0 | 0.05 |
| Dist: Max Free Cl2 Resid - DW (mg/L) | 0.41 | 0.39 | 0.71 | 0.31 | 0.2 | 0.35 | 0.18 | 0.09 | 0.13 | 0.21 | 0.19 | 0.47 | | | 0.71 | | |
| Bacti Samples Collected: | | | | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - RW | 4 | 5 | 4 | - 6 | 5 | 4 | - 4 | 5 | 4 | 5 | 4 | 4 | 54 | | | | |
| Treated Bacti: # of samples - TW | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 5 | 4 | - 6 | 4 | 4 | 53 | | | | |
| Dist Bacti: # of samples - DW | 12 | 15 | 13 | 13 | 16 | 12 | 12 | 15 | 12 | 15 | 12 | 12 | 159 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Treated Bacti: # of EC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Raw Water Flow Summary

Drinking-Water System Number:

210000318

Drinking-Water System Name:

BOBCAYGEON DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-105

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

RW

Source Type:

Lake

Drinking Water Permit to Take Water No:

6837-7JCP2G

| | Ba Abb. Fl Tabal | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|--------------------|------------|--------------------|--------------|----------------|
| Month | Monthly Flow Total | Average | Maximum | Average Flow | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/sec) | (L/sec) |
| Jan | 68576.00 | 2212.13 | 2821.00 | 25.61 | 53.70 |
| Feb | 57987.00 | 1999.55 | 2093.00 | 22.73 | 55.10 |
| Mar | 66808.65 | 2155.12 | 2744.00 | 24.99 | 55.70 |
| Apr | 66847.00 | 2228.23 | 2844.00 | 25.80 | 46.30 |
| May | 80262.00 | 2589.10 | 3588.00 | 29.97 | 55.40 |
| Jun | 85497.79 | 2849.93 | 3588.00 | 32.99 | 61.00 |
| Jul | 88032.66 | 2839.76 | 3393.00 | 32.49 | 59.40 |
| Aug | 86183.00 | 2780.10 | 3363.00 | 32.21 | 58.10 |
| Sep | 75912.50 | 2530.42 | 2973.00 | 28.81 | 57.90 |
| Oct | 66327.71 | 2139.60 | 2562.00 | 24.78 | 58.20 |
| Nov | 61162.26 | 2038.74 | 2187.00 | 23.85 | 54.10 |
| Dec | 63454.55 | 2046.92 | 2182.00 | 23.69 | 49.80 |
| Total | 867051.12 | <u> </u> | - | 22 | 22 |
| Avg | 72254.26 | 2367.47 | 6 000 5 | 27.33 | |
| Max | 88032.66 | 25 | 3588.00 | 34 | 61.00 |
| Criteria | : 11 53 | | 5184.00 | 18.5 | 60.00 |

Treated Water Flow Summary

Drinking-Water System Number: 210000318

Drinking-Water System Name: BOBCAYGEON DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-105

Period being reported: 01/2016 - 12/2016

Treated Water (Source Name) TW

| Month | Monthly Flow Total | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|--------------------|------------------|------------|--------------------|----------------|
| wonth | (m3/month) | Average (m3/day) | Maximum | Average Flow | Peak Flow Rate |
| | | 1751.58 | (m3/day) | Rate (L/sec) | (L/sec) |
| Jan | 54299.00 1 | | 2100.00 | 20.28 | 45.60 |
| Feb | 45713.00 | 1576.31 | 1767.00 | 18.19 | 42.67 |
| Mar | 50811.21 | 1639.07 | 1830.00 | 19.01 | 45.43 |
| Apr | 52444.00 | 1748.13 | 2110.00 | 20.24 | 40.85 |
| May | 65039.00 | 2098.03 | 2987.00 | 24.25 | 48.43 |
| Jun | 70607.74 | 2353.59 | 3233.00 | 27.21 | 45.87 |
| Jul | 72748.59 | 2346.73 | 2885.00 | 26.94 | 86.77 |
| Aug | 71376.00 | 2302.45 | 2762.00 | 26.65 | 50.10 |
| Sep | 62686.27 | 2089.54 | 2547.00 | 24.23 | 47.29 |
| Oct | 54668.54 | 1763.50 | 2151.00 | 20.52 | 47.22 |
| Nov | 51832.16 | 1727.74 | 1897.00 | 20.00 | 45.33 |
| Dec | 54824.12 | 1768.52 | 1928.00 | 20.84 | 42.62 |
| Total | 707049.63 | | NE. | (500) | |
| Avg | 58920.80 | 1930.43 | | 22.36 | = |
| Max | 72748.59 | | 3233.00 | :##0: | 86.77 |
| Criteria | | 41 | 5184.00 | 5 810 8 | 60 |

Ontario Clean Water Agency Time Series Info Report

From: 01/01/2016 to 31/12/2016

11/2016

12/2016

Max

Min

Facility Org Number:

5779

Facility Works Number:

210000318

Facility Name:

BOBCAYGEON DRINKING WATER SYSTEM

Facility Owner:

Municipality: City of Kawartha Lakes

Facility Classification:

Class 3 Water Treatment

Service Population:

3313.0

Total Design Capacity:

5184.0 m3/day

| rotal besign capacity, | • | | | | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | |
| DIALL OF DESIGNATION OF THE PERSON OF THE PE | | | | | | | | | | | |

| DW / CI Residual: Free - mg/L | | | | | | | | | | | | | | |
|--------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Max IH | 0.41 | 0.39 | 0,71 | 0,31 | 0.2 | 0.35 | 0,18 | 0.09 | 0.13 | 0.21 | 0.19 | 0.47 | 0.71 | |
| Min IH | 0 | 0 | 0.02 | 0.01 | 0 | 0 | 0 | 0.02 | 0.01 | 0 | 0.04 | 0.01 | | 0 |
| DW / Cl Residual: Total - mg/L | | | | | | | | | | | | | | |
| Max IH | 2,3 | 2.71 | 2.3 | 2.18 | 2.3 | 2.8 | 2.4 | 2.2 | 2.04 | 2.2 | 2.14 | 2.2 | 2.8 | |
| Min IH | 0.7 | 0.87 | 0.78 | 0.86 | 0.44 | 0.86 | 0.84 | 0.63 | 0.47 | 0,53 | 0.71 | 0.43 | | 0,43 |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Canadiana Shores DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Canadiana Shores DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Canadiana Shores DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Canadiana Shores DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|---|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903) | The Owner/Operating Authority shall ensure that continuous analysers are calibrated, maintained, and operated, in accordance with the manufacturer's instructions or 0. Reg 170/03 6-5(1)8&6-5(1)10. | 21/09/2015 04/01/2016 24/08/2016 | The Owner/Operating Authority provided operators with training on calibrating online analysers on October 5 | Complete |
| Drinking Water Works Permit 141- 212 | No failures to report | | | |
| Municipal Drinking Water Licence 141-112 | No failures to report | | | |

| Permit to Take Water 8687-7JDRV6 | No failures to report | | |
|--|-----------------------|--|--|
| Provincial Officer's Order No. | No failures to report | | |

The 2016 Compliance Inspection occurred on October 14, 2016.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Canadiana Shores DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Onfario Clean Water Agency Performance Assessment Report Water

From: 01/01/2016 to 31/12/2016

Report extracted 92/01/2017 14:52 Facility: [5044] CANADIANA SHORES DRINKING WATER SYSTEM Works: [5844] CANADIANA SHORES ORINKING WATER SYSTEM

| Flows: Bloothly Total - RWT [m²] Raw Flow: Monthly Total - RWT [m²] Raw Flow: Monthly Total - RWZ (m²) Raw Flow: Monthly Total - RWZ (m²) | 894.96 | | | | | | | | | | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--------|--------|-------|---|
| Raw Flow: Monthly Total - RW2 (m²) Raw Flow: Monthly Total - RW3 (m²) | 894.96 | | | | | | | | | | | | | | | | |
| Raw Flow, Monthly Total - RW3 (m²) | | 872.54 | 859.1 | 968-66 | 1922,22 | 1782 | 1682 | 1239 | 712.45 | 1091.51 | 794 | 1076.68 | 13056.13 | | | | |
| | 1068.43 | 1046.20 | 1051,78 | 1129,63 | 1460 | 1520 | 1066 | 1464 | 1457.99 | 1275.7 | 1083 | 1070.70 | 15615.52 | | | | |
| | 1077.22 | 843.75 | 994.03 | 888.42 | 868 | 1759 | 1378 | 1665 | 1511.48 | 1294,71 | 1132 | 1910.73 | 15422.34 | | | | |
| Raw Flow: Monthly Avg - RW1 (m/ld) | 28.67 | 30.00 | 29 | 32.06 | 62.01 | 59,42 | 54.26 | 39.97 | 23,75 | 35.21 | 26.47 | 34,73 | | 38.06 | | | |
| Raw Flow: Monthly Avg - RW2 (mfld) | 34.47 | 36.08 | 33.93 | 37.65 | 47.1 | 50.67 | 63.48 | 47,87 | 48.6 | 41,15 | 36,1 | 31.54 | | 42.54 | | | |
| Raw Flow: Monthly Avg - RW3 (m1/d) | 34.75 | 29.00 | 32.07 | 32,05 | 28.03 | 58.63 | 44,45 | 53,71 | 50.38 | 41.76 | 37.73 | 61,64 | | 42.1 | | | |
| Raw Flow: Monthly Max - RW1 (m/ld) | 105.94 | 53.56 | 65.76 | 91.76 | 183 | 192 | 123 | 86 | 68.69 | 77 | 56 | 119 | | | 192 | | |
| Haw Flow: Monthly Max - RW2 (m1/d) | 118,57 | 110,97 | 94.05 | 134 | 131 | 1.05 | 212 | 105 | 136 | 91 | 77 | 511 | | | 212 | | |
| Raw Flow: Monthly Max - RW3 (m1/d) | 115.53 | 60.02 | 48.52 | 77 | 135 | 195 | 123 | 99 | 88 | 119 | 81 | 148 | | | 195 | | |
| Treated Flow: Monthly Total - TW (m²) | 2683.11 | 2462.31 | 2702.85 | 2827.6 | 3906.03 | 4493 | 4458 | 3722 | 2994 | 3120 | 2563 | 3405.64 | 39427.54 | | | | |
| Treated Flow: Monthly Avg + TW (mht) | 86.55 | 84 91 | 87.19 | 94.25 | 126 | 149,77 | 143.81 | 120.06 | 19.8 | 100.65 | 85.43 | 112.76 | | 167.5 | | | |
| Treated Flow: Monthly Max - TW (m*ld) | 103,97 | 108.65 | 104.4 | 134.67 | 222 | 238 | 205 | 202 | 145 | 141 | 109 | 244 | | | 244 | | |
| Raw Flow, Monthly Total - RW total raw (m²) | 3011.13 | 2762.94 | 2969.88 | 3105.78 | 4129.84 | 5055.39 | 5020.58 | 4433.07 | 3674.07 | 3657.31 | 3002.32 | 4002.8 | 44827.22 | | | | |
| Raw Flow: Monthly Avg - RW total raw (m*ld) | 97.13 | 95.27 | 95.8 | 103.56 | 133,22 | 168,55 | 161.96 | 143 | 122.47 | 117.00 | 100.08 | 129.12 | | 122.35 | | | 6 |
| Raw Flow, Monthly Max - RW total raw (m*ld) | 119.22 | 133.03 | 129.55 | 148.86 | 242,81 | 268.1 | 220.08 | 227.27 | 196.47 | 164.65 | 138.36 | 280.23 | | | 280.23 | | |
| Turbidity | | | | | | | | | | 1 200 | | | | | | 1 - 2 | |
| Raw: Max Turbidity - RW1 (NTU) | 0.33 | 0.26 | 0.39 | 0.35 | 921 | 0.27 | 0.54 | 0.27 | 0.44 | 0.48 | 0.55 | 0.46 | | 1 - 1 | 0.55 | 1 | |
| Raw: Max Turbidity - RW2 (NTU) | 0.29 | 0.86 | 0.46 | 0.30 | 0.65 | 0.57 | 0.58 | 0.49 | 0.64 | 0.82 | 0.29 | 0.55 | 3 | | 0.88 | | |
| Raw: Max Turbidity - RW3 (NTU) | 0.35 | 0.16 | 1.09 | 0.48 | 0.23 | 0.31 | 0.26 | 0,55 | 0.50 | 0.47 | 0.23 | 0.8 | | | 1.00 | 1 | |
| Treated: Min Turbidity - TW (NTU) | 0 | 0 | 9.03 | 9,03 | 0.03 | 0.02 | 0 | | | | | | | | - 0 | | |
| Treated: Max Turbidity - TW (NTU) | 1,03 | 1 1 | 1,03 | 1 | 1 | 1 | 1.02 | | 1 | 1 | 1 | | | 1 | 1.00 | | |
| Fitter Eff: Min Turbidity - Fifth (NTU) | 0 | 0 | 0 | 0 | 0,018 | 0.018 | 0.015 | 0 | 0 | 0 | 0 | 0.000 | | | | 0 | |
| Filter Eff: Min Turbidity - Filt2 (NTU) | 0 | 0 | 0 | 0 | 0.001 | 0 | 0.035 | 0 | 0 | 0 | 0 | 0 | | | | 0 | |
| Filter Eff: Max Turbidity - Filt1 (NTU) | 0.148 | 2.021 | 0,23 | 0.523 | 0.184 | 0,22 | 1.09 | 1,974 | 0.922 | 1,997 | 1,899 | 0.103 | | | 2,021 | | |
| Filter Eff: Max Turbidity - Filt2 (NTU) | 0,078 | 2,003 | 0.503 | 0.454 | 0,212 | 0.209 | 2.01 | 2.048 | 1.489 | 1,895 | 1.054 | 0.228 | | | 2,048 | | |
| Chemical Parameters: | | | - | - | | | | | | 1 | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | 0.003 | | | < 0,003 | | | | | 0,003 | | |
| Treated: Max Nitrate - TW (mg/L) | 0.995 | | | 1.14 | | | 1.16 | 4 | | 1.07 | | | | | 1.16 | | |
| Distribution: Max YHM - DW (upf) | 8.3 | - | | 9.2 | | _ | 6.2 | | | 7.4 | | | | | 9.2 | | |
| Chlorine Residuals: | | | | | | 1 1 | | | | | | | | | | | |
| Treated: Min Free CIZ Resid - TW (mg/L) | 0.704 | 0.831 | 0 | 0.98 | 0.057 | 1.52 | 90.0 | 0 | 0.871 | 0.15 | 0.96 | 1.418 | | | | - 0 | |
| Treated: Max Free C12 Resid - TW (mg/L) | 2,222 | 2.460 | 2.505 | 2.642 | 2.492 | 2,191 | 3.27 | 3.908 | 2.065 | 3.4 | 2.558 | 2.079 | | | 3,908 | | |
| Dist: Min Free CI2 Resid - DW (mg/L) | 0.85 | 0.00 | 0.95 | 1.21 | 1.37 | 1.25 | 1.1 | 1.05 | 1.05 | 1.2 | 1.37 | 1,18 | | | | 0.85 | |
| Dist; Max Free Cl2 Resid - DW (mg/L) | 1.38 | 1.61 | 1.62 | 1.85 | 1.86 | 1.77 | 1.7 | 7.58 | 1,76 | 1.04 | 1,96 | 1.8 | | | 1.56 | | |
| Bacti Samples Cullected: | | | - | | | | | | | | | | | | | | |
| Rew Bacti: # of samples - RW1 | 4 | 5 | 141 | 4 | 7 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 54 | | | | - |
| Raw Bacti: # of samples - RW2 | 4 | 4 | 5 | 4 | 5 | | 4 | 5 | 4 | 5 | 4 | 4 | 54 | | | | |
| Raw Bacti: # of samples - RW3 | 4 | 5 | 4 | 4 | 7 | 4 | 4 | 5 | 4 | 5 | 4 | 14: | 54 | | | | |
| Treated Bacti: # of samples - TW | 4 1 | 5 | 4 | 4 | 5 | 1 | 4 | 5 | 4 | - 5 | 4 | 4 | 52 | | | | |
| Dist Bacti: # of samples - DW | 12 | 15 | 12 | 12 | 15 | 12 | 12 | 15 | 12 | 15 | 12 | 12 | 156 | | | | 7 |
| Treated Bact: # of TC exceedances - TW | 0 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - 6 | 0 | 0 | 0 | | | | |
| Treated Bacti: 6 of EC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | | | |
| Dist Bacti: # of TC esceedances - DW | 1 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Sacti: # of EC enceedances - DW | 0 | 0 | 0 | 0 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Drinking-Water System Number:

220006491

Drinking-Water System Name:

CANADIANA SHORES DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-112

Period being reported:

01/2016 12/2016

Raw Water

Raw Water (Source Name)

RW1

Source Type:

Drilled

Drinking Water Permit to Take Water No:

8687-7JDRV6

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 894.96 | 28.87 | 105.94 | 2.76 | 31 |
| Feb | 872.54 | 30.09 | 53.56 | 4.97 | 29 |
| Mar | 899.10 | 29.00 | 65.75 | 2.72 | 31 |
| Apr | 988.66 | 32.96 | 91.76 | 4.99 | 30 |
| May | 1922.22 | 62.01 | 183.00 | 3.43 | 31 |
| Jun | 1783.00 | 59.43 | 192.00 | 2.54 | 30 |
| Jul | 1682.00 | 54.26 | 123.00 | 3.22 | 31 |
| Aug | 1239.00 | 39.97 | 86.00 | 2.56 | 31 |
| Sep | 712.46 | 23.75 | 68.69 | 3.03 | 30 |
| Oct | 1091.51 | 35.21 | 77.00 | 3.44 | 31 |
| Nov | 794.00 | 26.47 | 56.00 | 3.43 | 30 |
| Dec | 1076.68 | 34.73 | 119.00 | 5.13 | 31 |
| Total | 13956.13 | 456.74 | 1221.70 | 42.23 | 366 |
| Avg | 1163.01 | 38.06 | 101.81 | 3.52 | 31 |
| Max | 1922.22 | 62.01 | 192.00 | 5.13 | 31 |
| Criteria | | | 410.4 | 4.75 | |

Drinking-Water System Number:

220006491

Drinking-Water System Name:

CANADIANA SHORES DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-112

Period being reported:

01/2016 12/2016

Raw Water

Raw Water (Source Name)

RW2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

8687-7JDRV6

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 1068.43 | 34.47 | 118.57 | 3.00 | 31 |
| Feb | 1046.23 | 36.08 | 110.97 | 7.93 | 29 |
| Mar | 1051.78 | 33.93 | 94.05 | 2.33 | 31 |
| Apr | 1129.63 | 37.65 | 134.00 | 9.98 | 30 |
| May | 1460.00 | 47.10 | 131.00 | 4.70 | 31 |
| Jun | 1520.00 | 50.67 | 185.00 | 2.86 | 30 |
| Jul | 1968.00 | 63.48 | 212.00 | 2.70 | 31 |
| Aug | 1484.00 | 47.87 | 105.00 | 2.69 | 31 |
| Sep | 1457.99 | 48.60 | 136.00 | 2.69 | 30 |
| Oct | 1275.70 | 41.15 | 91.00 | 2.71 | 31 |
| Nov | 1083.00 | 36.10 | 77.00 | 2.68 | 30 |
| Dec | 1070.76 | 34.54 | 111.00 | 2.65 | 31 |
| Total | 15615.52 | 511.64 | 1505.59 | 46.92 | 366 |
| Avg | 1301.29 | 42.64 | 125.47 | 3.91 | 31 |
| Max | 1968.00 | 63.48 | 212.00 | 9.98 | 31 |
| Criteria | | | 285 | 3.30 | |

Drinking-Water System Number:

220006491

Drinking-Water System Name:

CANADIANA SHORES DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality
Large Municipal Residential

Drinking-Water System Category: Municipal Drinking Water License:

141-112

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW3

Source Type:

Drilled

Drinking Water Permit to Take Water No:

8687-7JDRV6

| | Monthly Flow Total | Daily Flavy | Daily Flow | Daily Flow | Number of Days |
|----------|--------------------|------------------|------------|----------------|-----------------|
| Month | Monthly Flow Total | Daily Flow | Maximum | Peak Flow Rate | of Water Taking |
| | (m3/month) | Average (m3/day) | (m3/day) | (L/sec) | Of Water Taking |
| Jan | 1077.22 | 34.75 | 115.53 | 2.89 | 31 |
| Feb | 843.75 | 29.09 | 60.02 | 4.92 | 29 |
| Mar | 994.03 | 32.07 | 48.52 | 2.90 | 31 |
| Apr | 988.42 | 32.95 | 77.00 | 5.00 | 30 |
| May | 869.00 | 28.03 | 135.00 | 3.36 | 31 |
| Jun | 1759.00 | 58.63 | 195.00 | 2.37 | 30 |
| Jul | 1378.00 | 44.45 | 123.00 | 2.36 | 31 |
| Aug | 1665.00 | 53.71 | 99.00 | 2.36 | 31 |
| Sep | 1511.48 | 50.38 | 88.00 | 2.36 | 30 |
| Oct | 1294.71 | 41.76 | 119.00 | 2.35 | 31 |
| Nov | 1132.00 | 37.73 | 81.00 | 3.85 | 30 |
| Dec | 1910.73 | 61.64 | 148.00 | 5.15 | 31 |
| Total | 15423.34 | 505.20 | 1289.07 | 39.85 | 366 |
| Avg | 1285.28 | 42.10 | 107.42 | 3.32 | 31 |
| Max | 1910.73 | 61.64 | 195.00 | 5.15 | 31 |
| Criteria | | | 288 | 3.33 | |



February 17, 2017

Ms Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON

Re: Summary Report - Safe Drinking Water Act - Fenelon Falls DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Fenelon Falls DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Fenelon Falls DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Fenelon Falls DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|--|---|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Monthly filter performance criteria | January 2016 | Filter 1 was <0.1 NTU 93.5% of the time the filter was in production in January 2016. Remediation steps were taken throughout January to minimize turbidity spikes. Verified online turbidity analyzer to handheld analyzer.Calibrated online turbidity analyzer. Adjusted coagulant dosage. Ongoing analyzer cleans. | Complete |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|--|--|--|--|
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Monthly filter performance criteria | February 2016 | Filter 2 taken out of service leaving filter 1 as the sole filter in service. Filter 1 performance increased once filter 2 returned to service. Replaced the coagulant pumps and inspected and clean injector quill. Troubleshoot with GE. Bypassed the fixed rate pump supplying water to filter 2 analyzer and flow to analyzer maintained with flow from permeate pumps. Inspected fix rate pump revealed damage which was introducing air to the analyzer feed line. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Trihalomethanes (THMS) 106.6 ug/L Rolling Annual Average | Rolling Annual Average ending March 31, 2016 | Sample locations were flushed and resampled. Adjustments made to slow mixing settings to achieve better floc. Adjustments made to reject pumps settings to remove more sludge. | Complete |
| | | | Blower settings adjusted so blowers are off when filters are off. Adjusted high lift settings to allow greater tower turnover. | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | False filter turbidity reading being recorded. Signal from filter 2 turbidity analyzer was intermittent and filter 1 signal was consistently trending 0 NTU. | July 2, 2016 | Both filters taken out of service. Scaling had been changed on filter 1 and was returned to original setting. Located the bad connection on filter 2 analyzer and repaired connection. Flush system and increase chlorine dosage. Collect bacteriological samples. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Trihalomethanes (THMS) 116 ug/L Rolling Annual Average | Rolling Annual Average ending June 30, 2016 | Increased frequency and locations of samples to better track areas of increasing THMs. Install automatic flushers in the distribution system. | Complete |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|--|---|--|--|
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Trihalomethanes (THMS) 102.3 ug/L Rolling Annual Average | Rolling Annual Average ending September 30, 2016 | Increased frequency and locations of samples to better track areas of increasing THMs. Install automatic flushers in the distribution system. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Record keeping concerning low coagulant dosage* | February 25 — March 2, 2015 | The OCWA 'Maintenance and Use of Facility and Personal Logbooks: O. Reg 128/04 and O. Reg 129/04' training module and the MOECC document 'Overall Responsible Operator vs. Operator-in-Charge' were reviewed with staff. | Complete |
| Municipal Drinking Water Licence | No failures to report | | | |
| Drinking Water Works Permit | No failures to report | | | |
| Permit to Take Water #4624- 7JCQJW | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

^{*}Record keeping concerning low coagulant dosage February 25 – March 2, 2015 is being included in the 2016 Summary Report as the findings of the 2015/2016 Ministry of the Environment and Climate Change Compliance Inspection Report were not received in time to include in the Fenelon Falls 2015 Summary Report.

The 2016/2017 Ministry of the Environment and Climate Change Compliance Inspection Report had not yet been received by the Ontario Clean Water Agency by February 17, 2017. As a result, any compliance issues that may be identified as part of the Compliance Inspection cannot be included in this summary report. The Compliance Inspection started on January 12, 2017.



What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of reports for the Fenelon Falls DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Onlario Clean Water Agency Performance Assessment Report Water

From:

01/01/2016 to 31/12/2016

Facility: [5998] FENELON FALLS DRINKING WATER SYSTEM
Works: [5998] FENELON FALLS DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <~Total~> | <-Avg> | <-Max.⊷> | < thin,> | <criteria-< th=""></criteria-<> |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|---------|----------|----------|---------------------------------|
| lows: | | | | 10 | | | | | | 4 | | | | | | | |
| Raw Flow: Monthly Total - RW (m*) | 25941 | 26247 | 25617 | 24642 | 35981 | 39982.1 | 41106.4 | 40000 | 34073 | 30470 | 26542 | 24705.9 | 375307.4 | | | | |
| Raw Flow: Monthly Avg - RW (m1/d) | 830.61 | 905.07 | 826,35 | 821,4 | 1160.68 | 1332.74 | 1326.01 | 1200.32 | 1135,77 | 982.9 | 884,73 | 790,96 | | 1024.98 | | | |
| Rew Flow: Monthly Max - RW (m*/d) | 889 | 1069 | 984 | 1003 | 1820 | 1651 | 1512 | 1637 | 1389 | 1293 | 1188 | 948 | | | 1820 | | 2847 |
| Treated Flow: Monthly Total - TW (m²) | 19323 | 19338 | 18831 | 18485 | 27530 | 30875.5 | 32056.2 | 31513 | 26816 | 23941 | 20530 | 19049,5 | 288097.2 | | | | |
| Treated Flow: Monthly Avg - TW (m*/d) | 623.32 | 666,83 | 607.45 | 516,17 | 888.35 | 1029.15 | 1034.07 | 1016.55 | 887.2 | 772.29 | 884.33 | 614.5 | 7 | 786.69 | | | |
| Treated Flow: Monthly Max - TW (m*/d) | 659 | 8CB | 728 | 753 | 1421 | 1306 | 1164 | 1284 | 1089 | 1042 | 916 | 715 | | | 1421 | | 2847 |
| Turbidity: | | | | | | | | | | | 1 | 1 | | | | | |
| Row: Max Turbidity - RW (NTU) | | | | | 2.53 | 1,54 | 7.55 | 5.15 | 3.34 | 3.30 | 4.35 | 1,47 | | | 7.55 | | |
| Filter Eff: Min Turbidity - Fift1 (NTU) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | |
| Filter EN: Min Turbidity - Filt2 (NTU) | 0 | 0. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | |
| Filter Eff: Max Turbidity - Filt1 (NTU) | 0.45 | 0.49 | 2,18 | 0.33 | 2.57 | 2.58 | 2 | 2.32 | 0.59 | 2.18 | 1.01 | 2.13 | 1 1 | | 2.58 | | 1 |
| Filter Eff: Max Turbidity - Filt2 (NTU) | 0.12 | 0,12 | 0.05 | 0.08 | 0.08 | 0.03 | 0.05 | 0.04 | 0.03 | 0.04 | 0.08 | 0.12 | 0,1 | | 2.62 | | -1 |
| Chemical Parameters: | | | | | | | | | | | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | | < 0.003 | | < 0.003 | | | < 0.003 | | | < 0.003 | | | | | < 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | | 0.083 | | 0,093 | | | 0.021 | | | 0.013 | | | | | 0,093 | | 10 |
| Distribution: Max THM - DW (pg/f) | | 116 | | 112 | 114 | 135 | 183 | | 142 | 00 | 77 | | | 102.56* | | | 100 |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | |
| Treated: Max Free CI2 Resid - TW (rng/L) | 1.96 | 2.3 | 1.79 | 2.09 | 1,99 | 2.45 | 2.29 | 2.3 | 2.33 | 1.83 | 2.16 | 1.81 | | | 2.45 | | |
| Dist: Min Free Cl2 Resid - DW (mg/L) | 0.39 | 0.23 | 0.47 | 0.55 | 0.05 | 0.22 | 0.51 | 0.29 | 0.49 | 0.4 | 0.76 | 0.99 | | | | 0.05 | 0.05 |
| Dist; Max Free CI2 Resid - DW (mg/L) | 1.53 | 1.94 | 1.35 | 1.65 | 1.4 | 2.07 | 2.1 | 1.73 | 1,77 | 1.28 | 1,47 | 1.63 | 3 | | 2.1 | | |
| Bacti Samples Collected: | | | | | | | | | | | | 1 | | | | | |
| Raw Bacti: # of samples - RW | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 52 | | | | |
| Treated Bacti: # of samples - TW | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 5 | 4 | 5 | 4 | 4 | 53 | | | | |
| Dist Bacti: # of samples - DW | 12 | 15 | 12 | 12 | 15 | 12 | 12 | 15 | 12 | 15 | 12 | 12 | 156 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 44 | |
| Treated Bacti: # of EC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | .0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Raw Water Flow Summary

Drinking-Water System Number:

210000327

Drinking-Water System Name:

FENELON FALLS DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-104

Period being reported:

01/2016 - 12/2016

Drinking Water Permit to Take Water No:

4624-7JCQJW

| Month | Monthly Flow Total (m3/month) | Daily Flow Average | Daily Flow Maximum | Daily Flow Peak Flow Rate | Number of Days of Water Taking |
|----------|-------------------------------|-----------------------|-----------------------|------------------------------|--------------------------------|
| | (ms/month) | (m3/day) | (m3/day) | (L/sec) | o, tracer raking |
| Jan | 25941.00 | 836.81 | 889.00 | 26.37 | 31 |
| Feb | 26247.00 | 905.07 | 1069.00 | 26.03 | 29 |
| Mar | 25617.00 | 826.35 | 984.00 | 29.61 | 31 |
| Apr | 24642.00 | 821.40 | 1003.00 | 28.77 | 30 |
| May | 35981.00 | 1160.68 | 1820.00 | 36.36 | 31 |
| Jun | 39982.10 | 1332.74 | 1651.00 | 33.14 | 30 |
| Jul | 41106.40 | 1326.01 | 1512.00 | 43.74 | 31 |
| Aug | 40000.00 | 1290.32 | 1637.00 | 28.35 | 31 |
| Sep | 34073.00 | 1135.77 | 1389.00 | 29.32 | 30 |
| Oct | 30470.00 | 982.90 | 1293.00 | 27.36 | 31 |
| Nov | 26542.00 | 884.73 | 1188.00 | 28.33 | 30 |
| Dec | 24705.90 | 796.96 | 948.00 | 26.28 | 31 |
| Total | 375307.40 | S ele ct | == | | 366 |
| Avg | 31275.62 | 1024.98 | == | 77.T- | - |
| Max | 41106.40 | 1 (28) | 1820.00 | 43.74 | |
| Criteria | == | 1.00 | 2847.00 | 47.45 | - |

Treated Flow Summary

Drinking-Water System Number:

210000327

Drinking-Water System Name:

FENELON FALLS DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-104

Period being reported:

01/2016 - 12/2016

| | Monthly Flour Total | Daily Flow | Daily Flow | Daily Flow |
|----------|---------------------|------------|------------|----------------|
| Month | Monthly Flow Total | Average | Maximum | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | (L/sec) |
| Jan | 19323.00 | 623.32 | 669.00 | 22.91 |
| Feb | 19338.00 | 666.83 | 808.00 | 38.92 |
| Mar | 18831.00 | 607.45 | 728.00 | 48.23 |
| Apr | 18485.00 | 616.17 | 753.00 | 23.76 |
| May | 27539.00 | 888.35 | 1421.00 | 45.16 |
| Jun | 30875.50 | 1029.18 | 1306.00 | 47.43 |
| Jul | 32056.20 | 1034.07 | 1164.00 | 40.41 |
| Aug | 31513.00 | 1016.55 | 1284.00 | 25.10 |
| Sep | 26616.00 | 887.20 | 1089.00 | 26.50 |
| Oct | 23941.00 | 772.29 | 1042.00 | 24.10 |
| Nov | 20530.00 | 684.33 | 916.00 | 25.46 |
| Dec | 19049.50 | 614.50 | 715.00 | 23.27 |
| Total | 288097.20 | | | |
| Avg | 24008.10 | 786.69 | | 7- |
| Max | 19049.50 | | 1421.00 | 48.23 |
| Criteria | | | 2847.00 | 47.45 |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Janetville DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Janetville DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Janetville DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Janetville DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board: or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Low pressure | February 22, 2016 – February 25, 2016 | Boil water advisory issued. Repaired watermain and restored pressure. Flushed distribution and took bacti samples. | Complete. |
| Drinking Water Works Permit 141- 211 | No failures to report | | | |
| Municipal Drinking Water Licence 141-111 | No failures to report | | | |
| Permit to Take Water 0425- 7JDS66 | No failures to report | | | |

| Provincial Officer's Order | No failures to report | | |
|-------------------------------|-----------------------|--|--|
| Officer's Order No. | | | |

The 2016 Compliance Inspection occurred on May 3, 2016. No failures were identified.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Janetville DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Ontario Clean Water Agency Performance Assessment Report Water

From: 01/01/2016 to 31/12/2016

Report extracted 02/01/2017 14:65
Facility: [6847] JANETVILLE DRINKING WATER SYSTEM
Works: [5847] JANETVILLE DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 05/2018 | 97/2016 | 08/2015 | 09/2016 | 10/2016 | 11/2016 | 12/2018 | €Total> | e-Avg> | <-Max -> | <-Min> |
|---|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|----------|--------|----------|--------|
| Flows: | | | | 1 | | | | | | | | | | | | |
| Raw Flow: Monthly Total - RW4 (m²) | 621.29 | 575.78 | 703.47 | 642.32 | 713 | 771 | 807 | 561.91 | 664 | 633 | 639 | 638 | 7909.77 | | | |
| Raw Flow: Monthly Total - RWS (m²) | 663.67 | 549.32 | 766.64 | 674.98 | 979 | 1021 | 952 | 1566 | 1216 | 1176 | 1024 | 1191 | 11879.81 | | | |
| Raw Flow: Monthly Total - RW3 (m²) | 560.36 | 540.76 | 540.51 | 574.12 | 747 | 793 | 770 | 290.68 | 0 | 0 | 10.07 | 6.41 | 4932.91 | | | |
| Raw Flow: Morthly Avg - RW4 (m*/d) | 20.04 | 19.85 | 22.69 | 21.41 | 23 | 25.7 | 26.03 | 18.13 | 22.13 | 21.1 | 21.3 | 20.58 | | 21.83 | | |
| Raw Flow: Monthly Avg - RWS (m²/d) | 21.42 | 22.39 | 24.73 | 22.5 | 31.58 | 34.03 | 30.71 | 50.52 | 40.53 | 37.94 | 34.13 | 38.42 | | 32.41 | | |
| Raw Flow: Monthly Avg - RW3 (m1/d) | 18.08 | 18.65 | 20.66 | 19.14 | 24.1 | 26.43 | 24.84 | 9.38 | 0 | 0 | 0.34 | 0.21 | | 13.45 | | |
| Raw Flow: Monthly Max - RW4 (mYd) | 26.73 | 30.68 | 34.73 | 26,68 | 28 | 37 | 34 | 36 | 32 | 32 | 32 | 27 | | | 37 | |
| Raw Flow: Monthly Max - RWS (m*ld) | 30.7 | 53.42 | 43.71 | 30 | 69 | 49 | 48 | 53 | 65 | 72 | 56 | 57 | 2 - 1 | | 83 | |
| Raw Flow: Monthly Max - RW3 (m²/d) | 23.18 | 31.21 | 31.96 | 24 | 42 | 38 | 32 | 35 | 0 | 0 | 5.29 | 1.7 | | | 42 | |
| Treated Flow: Monthly Total - TW (m*) | 2020.56 | 1925.72 | 2272.7 | 2026.12 | 2569 | 2902 | 2833 | 2597 | 1993 | 1945 | 1963 | 1953 | 27122.1 | | | |
| Treated Flow: Monthly Avg - TW (m*/d) | 65.18 | 66.4 | 73.31 | 67.6 | 88.1 | 96.73 | 91.39 | 83.77 | 66.43 | 52.74 | 66.1 | 63 | | 74.06 | | |
| Treated Flow: Monthly Max - TW (mfld) | 83,11 | 100.32 | 113.71 | 83 | 143 | 180 | 109 | 117 | 96 | 55 | 244 | 77 | | | 244 | |
| Raw Flow: Monthly Total - RW total raw (m²) | 1845.72 | 1763.98 | 2120.07 | 1885.52 | 2405.91 | 2568.46 | 2415.86 | 2380.66 | 1870.7 | 1824.97 | 1655.84 | 1844 24 | 24642.93 | | | |
| Raw Flow: Monthly Avg - RW total raw (m/ld) | 59.54 | 60.83 | 68.39 | 62.85 | 79.55 | 85.62 | 77,96 | 76.9 | 62.36 | 50.67 | 55 19 | 59.49 | | 67.29 | | |
| Raw Flow: Monthly Max - RW total raw (m*/d) | 75.37 | 96.06 | 104 17 | 79.56 | 133.49 | 120.07 | 101.42 | 108.16 | 90.48 | 83.63 | 71.08 | 73.44 | | | 133.49 | |
| Turbidity: | | 1 | | 1 | | | | 1 110000 | 1 | _ | | | | | | |
| Raw: Max Turbidity - RWA (NTU) | 0.35 | 0.88 | 0.69 | 0.64 | 0.55 | 0.57 | 0.45 | 0.45 | 0.35 | 0.39 | 0.52 | 0.6 | | | 0.68 | |
| Raw: Max Turbidity - RW6 (NTU) | 0.24 | 1.14 | 0.53 | 0.53 | 0.4 | 0.38 | 0.29 | 0.33 | 0.049 | 0.43 | 0.47 | 0.43 | | | 1.14 | _ |
| Raw: Max Turbidity - RW3 (NTU) | 0.41 | 0.15 | 0.27 | 0.33 | 0.31 | 0.42 | 0.39 | 0.41 | 0.51 | 0.66 | 0.82 | 0.78 | | | 0.82 | |
| Treated: Min Turbidity - TW (NTU) | 0.41 | 0.41 | 0 | 0.41 | 0.31 | 0.31 | 0.25 | 0.23 | 0.23 | 0 22 | 021 | 0.19 | | | | 0 |
| Treated: Max Turbidity - TW (NTU) | 2 | 2 | 1.02 | 2 | 1.92 | 2 | 1.02 | 0.86 | 0.47 | 1.53 | 2 | 0.85 | | | 2 | |
| Chemical Parameters: | | | | | 1,28 | | 5 11 5 | | | | | 2.00 | | | | - I |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | 1 | | < 0.003 | _ | | < 0.003 | | | 0.003 | 1 | | | | < 0.003 | _ |
| Treated; Max Nitrate - TW (mg/L) | 0.013 | | | 0.013 | | | 0.017 | | | 0.009 | | | | | 0.017 | |
| Distribution: Max THM - DW (µg/l) | 40 | | | 22 | | | 28 | | _ | 8 | | | | | 40 | |
| Chlorine Residuats: | | | | | 3.00 | | | | | | | | | | | |
| Treated: Min Free C12 Resid - TW (mg/L) | 0.97 | 0.98 | 0 | 1.39 | 1.26 | 0.05 | 1.15 | 1.05 | 1.45 | 1.55 | 1.31 | 1742 | | | | 0 |
| Treated: Max Free Ct2 Resid - TW (mg/L) | 1.5 | 1.91 | 1.64 | 1.85 | 1.76 | 1.75 | 1.62 | 2.13 | 1.91 | 2.34 | 2.56 | 1.96 | | | 2.36 | 1 10 |
| Dist: Min Free C/2 Resid - DW (mg/L) | 0.73 | 0.75 | 1.22 | 1.03 | 0.86 | 0.73 | 0.58 | 0.69 | 1.25 | 131 | 1.52 | 1 22 | | | | 0.58 |
| Dist: Max Free Ct2 Resid - DW (mg/L) | 1.44 | 1.58 | 1.53 | 1.78 | 1.68 | 1.48 | 1.31 | 1.99 | 1.73 | 2.12 | 2.78 | 2.01 | | | 2.28 | 7000 |
| Bacti Samples Collected: | | | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - RW4 | 4 | 5 | 4 | 4 | - 5 | 4 | 4 | 5 | 4 | .5 | 4 | 4 | 52 | | | 0.01 |
| Raw Bacti: # of samples - RWS | 4 | 5 | 4 | 4 | - 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 52 | | | |
| Raw Bacti; # of samples - RWD | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 52 | | | |
| Treated Bacti: # of samples - TW | 4 | 8 | 4 | 1 1 | 5 | 4 | 1 4 | 5 | 4 | 5 | 1 4 1 | 4 | 56 | 2 | | |
| Dist Bacti: # of samples - DW | 12 | 26 | 12 | 12 | 15 | 12 | 12 | 15 | 12 | 15 | 12 | 12 | 167 | | | |
| Treated Bacti: # of TC exceedances - TW | 1 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Treated Sacti: # of EC exceedances - TW | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 1 | 1 0 1 | 1 0 | 0 | 0 | | | |
| Dist Bacti: # of TC exceedances - DW | 110 | 0 | 1 0 | 0 | 0 | 0 | 1 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Dist Bacti: # of EC excendances - DW | 1 0 | 0 | 1 0 | 0 | - 0 | | 0 1 | 0 1 | 0 | 0 | 1 1 | 0 | 0 | | | |

Drinking-Water System Number:

220006455

Drinking-Water System Name:

JANETVILLE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-111 01/2016

Period being reported:

12/2016

Raw Water

Raw Water (Source Name)

RW3

Source Type:

Drilled

Drinking Water Permit to Take Water No:

0425-7JDS66

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|--------------------------------|
| Jan | 560.36 | 18.08 | 23.18 | 0.88 | 31 |
| Feb | 540.76 | 18.65 | 31.21 | 0.88 | 29 |
| Mar | 640.51 | 20.66 | 31.96 | 0.88 | 31 |
| Apr | 574.12 | 19.14 | 24.00 | 1.35 | 30 |
| May | 747.00 | 24.10 | 42.00 | 2.00 | 31 |
| Jun | 793.00 | 26.43 | 36.00 | 2.00 | 30 |
| Jul | 770.00 | 24.84 | 32.00 | 2.00 | 31 |
| Aug | 290.68 | 9.38 | 35.00 | 2.00 | 31 |
| Sep | 0.00 | 0.00 | 0.00 | 2.05 | 30 |
| Oct | 0.00 | 0.00 | 0.00 | 2.00 | 31 |
| Nov | 10.07 | 0.34 | 5.29 | 2.00 | 30 |
| Dec | 6.41 | 0.21 | 1.70 | 0.85 | 31 |
| Total | 4932.91 | 161.81 | 262.34 | 18.89 | 366 |
| Avg | 411.08 | 13.48 | 21.86 | 1.57 | 31 |
| Max | 793.00 | 26.43 | 42.00 | 2.05 | 31 |
| Criteria | | | 95 | 1.1 | |

Drinking-Water System Number:

220006455

Drinking-Water System Name:

JANETVILLE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-111

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW4

Source Type:

Drilled

Drinking Water Permit to Take Water No:

0425-7JDS66

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|-------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 621.29 | 20.04 | 26.73 | 2.40 | 31 |
| Feb | 575.78 | 19.85 | 30.56 | 2.40 | 29 |
| Mar | 703.47 | 22.69 | 34.73 | 2.38 | 31 |
| Apr | 642.32 | 21.41 | 26.68 | 2.38 | 30 |
| May | 713.00 | 23.00 | 28.00 | 2.81 | 31 |
| Jun | 771.00 | 25.70 | 37.00 | 2.36 | 30 |
| Jul | 807.00 | 26.03 | 34.00 | 2.35 | 31 |
| Aug | 561.91 | 18.13 | 36.00 | 2.41 | 31 |
| Sep | 664.00 | 22.13 | 32.00 | 2.36 | 30 |
| Oct | 633.00 | 21.10 | 32.00 | 2.36 | 30 |
| Nov | 639.00 | 21.30 | 32.00 | 2.35 | 30 |
| Dec | 638.00 | 20.58 | 27.00 | 2.35 | 31 |
| Total | 7969.77 | 261.97 | 376.70 | 28.91 | 365 |
| Avg | 664.15 | 21.83 | 31.39 | 2.41 | 30 |
| Max | 807.00 | 26.03 | 37.00 | 2.81 | 31 |
| Criteria | | | 259.2 | 3.0 | |

Drinking-Water System Number:

220006455

Drinking-Water System Name:

JANETVILLE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-111

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW5

Source Type:

Drilled

Drinking Water Permit to Take Water No:

0425-7JDS66

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 663.87 | 21.42 | 30.70 | 1.65 | 31 |
| Feb | 649.32 | 22.39 | 53.42 | 1.65 | 29 |
| Mar | 766.64 | 24.73 | 43.71 | 1.65 | 31 |
| Apr | 674.98 | 22.50 | 30.00 | 6.00 | 30 |
| May | 979.00 | 31.58 | 69.00 | 1.64 | 31 |
| Jun | 1021.00 | 34.03 | 49.00 | 1.63 | 30 |
| Jul | 952.00 | 30.71 | 48.00 | 1.63 | 31 |
| Aug | 1566.00 | 50.52 | 83.00 | 1.64 | 31 |
| Sep | 1216.00 | 40.53 | 65.00 | 1.64 | 30 |
| Oct | 1176.00 | 37.94 | 72.00 | 1.63 | 31 |
| Nov | 1024.00 | 34.13 | 56.00 | 1.62 | 30 |
| Dec | 1191.00 | 38.42 | 57.00 | 1.73 | 31 |
| Total | 11879.81 | 388.90 | 656.83 | 24.11 | 366 |
| Avg | 989.98 | 32.41 | 54.74 | 2.01 | 31 |
| Max | 1566.00 | 50.52 | 83.00 | 6.00 | 31 |
| Criteria | | | 201.6 | 2.33 | |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - King's Bay DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the King's Bay DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the King's Bay DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The King's Bay DWS is categorized as a Small Municipal Residential Drinking Water System, however, it has passed the threshold for this classification. The City of Kawartha Lakes has applied for reclassification.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|--|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | The owner of a large municipal residential system that provides secondary disinfection and the operating authority for the system shall ensure that at least seven distribution samples are taken each week. | July 18, 2016 October 14, 2016 | The sampling schedule for King's Bay DWS was forwarded to the MOECC Drinking Water Inspector outlining the sampling requirements and schedule on January 30 th , 2017 | Complete. |
| Drinking Water Works Permit 141-219 | No failures to report | | <u> </u> | |
| Municipal Drinking Water Licence 141- 119 | No failures to report | | | |
| Permit to Take Water 2842- 8B8M9T | No failures to report. | | | |
| Provincial Officer's Order | No failures to report | | | |

The 2016 Compliance Inspection occurred on December 21, 2016.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the King's Bay DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Ontario Clean Water Agency Performance Assessment Report Water

D1/01/2016 to 31/12/2016

Report extracted 02/01/2017 15:06

Facility: [6080] KING'S BAY DRINKING WATER SYSTEM
Works: [6080] KING'S BAY DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2015 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total-> | <-Avg> | <-Max-> | e-Min-> | s-Criteria- |
|---|---------|---------|---------|---------|---------|---------|---------|---------|-----------|---------|-------------|---------|-----------|-----------|---------|---------|-------------|
| Flows | | | | | | | | | | | | | | | | 5 | 45 (3) |
| Raw Flow; Monthly Total - RW4 (m²) | 495.57 | 424.53 | 389.99 | 521.05 | 013.71 | 985.89 | 812.31 | 648.06 | 513 | 546.81 | 411,44 | 554.01 | 7217.19 | | | | |
| Raw Flow: Monthly Total - RW2 (m*) | 545.50 | 308.9 | 520.0 | 457.5 | 654 | 953.44 | 867.87 | 674.2 | 712.32 | 481.91 | 425.1 | 393.7 | 7065.43 | | | | |
| Raw Flow: Monthly Total - RW3 (m²) | 475.92 | 467.15 | 43476 | 454.42 | 687.1 | 941.94 | 808.59 | 797.54 | 673 | 573.22 | 491 | 552.12 | 7366.76 | | | | |
| Raw Flow: Monthly Avg - RW4 (mhd) | 15.99 | 14.64 | 12.58 | 17.37 | 25,47 | 32,86 | 26.24 | 20.91 | 17.1 | 17,64 | 13.71 | 17,87 | | 19.7 | | | |
| Raw Flow: Monthly Avg - RW2 (m*ld) | 17.6 | 13.76 | 16.8 | 15.25 | 21,1 | 31.78 | 25 | 21.75 | 23.74 | 15.55 | 14.17 | 12.7 | | 19,35 | | | |
| Raw Flow: Monthly Avg - RW3 (m/ld) | 15,35 | 16,11 | 14.02 | 15,40 | 22.16 | 31.4 | 26.08 | 25.73 | 22.43 | 18.49 | 16,37 | 17,81 | | 20,12 | | | |
| Raw Flow: Monthly Max - RW4 (m1)d) | 34,74 | 63.75 | 29.52 | 34.26 | 34 | 123 | 113 | 68 | 41 | 93 | 38.4 | 51 | | | 123 | | |
| Raw Flow; Monthly Max - RW2 (m%d) | 43.9 | 40.7 | 40.8 | 45 | 50.3 | 83.1 | 6.99 | 40 | 86.5 | 45.3 | 38.8 | 30 | | | 93.1 | | |
| Raw Flow: Monthly Max - RW3 (m1d) | 45.11 | 42.24 | 44.68 | 45.38 | 48 | 128 | 45 | 48 | 61 | 47 | 41 | 45 | | 1 1 | 128 | | |
| Freated Flow: Monthly Total - TW (m*) | 1380,82 | 1179.99 | 1246.42 | 1337,91 | 2015.01 | 2574.64 | 2351.95 | 1879 | 1479.86 | 1242 | 1137 | 1299,69 | 19125.38 | | | | |
| Treated Flow: Monthly Avg - TW (m1/d) | 44,54 | 40.68 | 40.21 | 44.5 | 65.03 | 85.83 | 75.87 | 60.61 | 49.33 | 41.4 | 37.9 | 41.93 | | 52.33 | | | |
| Treated Flow: Monthly Max - TW (m/ld) | 51,27 | 49.03 | 50.93 | 58 | 117 | 142.54 | 130,19 | 96 | 62.64 | 73 | 47 | 59 | | 1 - 0 - 1 | 142.54 | | |
| Raw Flow: Monthly Total - RW total raw (m*) | 1510.34 | 1303.28 | 1322.14 | 1417.66 | 2085.71 | 2842.46 | 2458.63 | 2038.34 | 1741.36 | 1519.06 | 1255.85 | 1406.61 | 20913.74 | | 1 | | - |
| Raw Flow: Monthly Avg - RW total raw (m*/d) | 40.72 | 44.94 | 42.65 | 47.27 | 67.64 | 94,75 | 79.31 | 65.79 | 58.05 | 49 | 41.06 | 45.37 | | 57.11 | | 0. | 1 |
| Raw Flow: Muntbly Max - RW total raw (m*/d) | 66.66 | 101.36 | 64 | 69.92 | 132.29 | 158.22 | 141.71 | 113.07 | 87.42 | 96.96 | 60.5 | 68.71 | 1 | | 158 22 | | _ |
| Yurbidity: | | | 112 | 77.17 | - | 1000 | 1 | | | 1 | | | | | 100.00 | | |
| Raw: Max Turbinky - RW4 (NTU) | 0.19 | 0.65 | 0.25 | 0.11 | 0.12 | 0.16 | 0.38 | 0.48 | 0.26 | 0.13 | 0.25 | 0.3 | | | 0.65 | | + |
| Raw: Max Turbicity - RW2 (NTU) | 0.22 | 0.21 | 0.25 | 0.13 | 0.00 | 0.42 | 0.55 | 12.0 | 0.24 | 0.12 | 0.46 | 0.47 | | ++ | 0.61 | - | + |
| Raw: Max Turbidity - RW3 (NTU) | 0.18 | 0.25 | 0.29 | 0.15 | 0.21 | 0.12 | 0.3 | 0.67 | 0.27 | 0.06 | 0.63 | 0.57 | 1-1 | 1 | 0.67 | - | + |
| Treated: Min Turbidity - TW (NTU) | 0 | 0 | 0 | 0.12 | 0 | 0 | 0.06 | 0 | 0 | 0 | 9.01 | 0.05 | | - | 1 0.00 | 0 | |
| Treated: Max Turbidity - TW (NTU) | | 7 | 2 | 0.67 | 1.88 | 2 | 2 | 0.84 | 3.64 | 2 | 1,99 | 1,05 | | | 2 | | |
| Chemical Parameters: | | 1 | | | 1.00 | | | 0.84 | 0.44 | - | 1.00 | 1,000 | | _ | - | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | < 0.002 | < 0.0D3 | < 0.003 | < 0.003 | < 0.000 | < 0.003 | < 0.003 | < 0.003 + | 0.003 | 0.000 | 0.003 | + | | 0.000 | | + |
| Treated: Max Nitrate - TW (molt.) | 3.02 | 3.04 | 2.91 | 3.01 | 3.01 | 2.57 | 2.03 | 1.36 | 1.83 | 1.98 | 2.26 | 2.96 | | | 3.12 | | + |
| Distribution: Max THM - DW (µg/l) | 7.1 | | 1 | 5.7 | 3,01 | | 5.2 | - 1.40 | 1 100 | 6.1 | | | + | | 8.2 | + | - |
| Chlorine Residuals: | | | | - | + | | | | | 40,5 | - | - | - | | 0.0 | | + |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 0 | 0 | 0 | 1.75 | 0 | 0.14 | 1.14 | 0.51 | 0 | 0.02 | 0.47 | 14 | 1-1 | 1 | 1 | 0 | - |
| Treated: Max Free CI2 Resid - TW (mg/L) | | 1 4 | 1 6 | 2.3 | 1 1 | 3.25 | 3.1 | 2.65 | 2.24 | 5,01 | 2.74 | 2,64 | | | 5.01 | | _ |
| Dist: Min Free CI2 Resid - DW (mg/L) | 0.99 | 1.00 | 1.19 | 1,12 | 1.43 | 1.17 | 1.57 | 1.1 | 1.38 | 1.01 | 1,13 | 0.05 | + | _ | 7.01 | 0.95 | + |
| Dist: Max Free CI2 Resid - DW (mg/L) | 2 | 1.85 | 1.95 | 2.05 | 2.39 | 2.58 | 2.57 | 2.5 | 2.17 | 2.66 | 1.97 | 2,51 | 1 | 1-1 | 2.66 | | - |
| Bacti Samples Collected: | | 1 | 1 | 1 100 | 200 | 1 1 | - | | 1 | 1 200 | + | 1 | + | 1 1 | 1 | - | _ |
| Raw Bacti: # of samples - RW4 | | - 6 | 4 | 4 | 5 | 4 | 141 | | - 2 | 5 | 4 | 4 | 62 | | + | | _ |
| Raw Bact: # of samples - RW2 | 4 | 5 | 4 | 1 2 | 5 | 4 | 4 | - 5 | 1 1 | 5 | 1 4 | 4 | 52 | _ | _ | _ | + |
| Raw Booti: # of samples - RW3 | | | | -i | | 4 | 4 | 1 | 1 1 | 5 | | | 52 | | | | _ |
| Treated Bacti: # of samples - TW | | 5 | 1 2 | 1 2 1 | | 4 | 1 | - 6 | 1 4 1 | 5 | 1 4 | 1 2 | 52 | | | | - |
| Dist Bacti: # of samples - DW | 12 | te | 13 | 13 | 16 | 12 | 12 | 15 | 13 | 10 | 12 | 12 | 162 | _ | | | _ |
| Treated Bacti: # of TC exceedances - TW | - 1 A | 0 | 0 | 1 0 | 0 | 0 | 14 | 0 | 13 | - 10 | 12 | 12 | 9 | _ | 1 | 1 | + |
| Treated Bacti: # of EC exceedances - TW | | 0 | 1 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 1 | _ | + |
| Dist Bacti: # of TC exceedances - DW | | 0 | 1 0 | - 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 0 | | | | _ |
| Dist Bacti: # of EC exceedances - DW | | 0 | 1 0 | | - | | | | | | | | | - | 1 | - | + |
| WILL BRIDGE BUT ESS EXCEPTION CES + DW | . 0 | 0 | 0 | 0 | .0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Drinking-Water System Number:

220002954

Drinking-Water System Name:

KING'S BAY DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality
Large Municipal Residential

Drinking-Water System Category: Municipal Drinking Water License:

141-119 Issue 2

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

2842-8B8M9T

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|--------------------------------|
| Jan | 545.59 | 17.60 | 43.90 | 1.31 | 31 |
| Feb | 398.90 | 13.76 | 40.70 | 1.23 | 29 |
| Mar | 520.90 | 16.80 | 40.80 | 1.28 | 31 |
| Apr | 457.50 | 15.25 | 45.00 | 1.25 | 30 |
| May | 654.00 | 21.10 | 50.30 | 1.22 | 31 |
| Jun | 953.44 | 31.78 | 93.10 | 1.30 | 30 |
| Jul | 867.87 | 28.00 | 69.90 | 2.80 | 31 |
| Aug | 674.20 | 21.75 | 49.00 | 3.00 | 31 |
| Sep | 712.32 | 23.74 | 86.50 | 1.26 | 30 |
| Oct | 481.91 | 15.55 | 45.30 | 1.30 | 31 |
| Nov | 425.10 | 14.17 | 38.80 | 1.26 | 30 |
| Dec | 393.70 | 12.70 | 30.00 | 1.29 | 31 |
| Total | 7085.43 | 232.19 | 633.30 | 18.50 | 366 |
| Avg | 590.45 | 19.35 | 52.78 | 1.54 | 31 |
| Max | 953.44 | 31.78 | 93.10 | 3.00 | 31 |
| Criteria | | | 123.84 | 1.43 | |

Drinking-Water System Number: 220002954

Drinking-Water System Name: KING'S BAY DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-119 Issue 2

Period being reported: 01/2016 12/2016

Raw Water

Raw Water (Source Name) RW3
Source Type: Drilled

Drinking Water Permit to Take Water No: 2842-8B8M9T

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|--------------------------------|
| Jan | 475.92 | 15.35 | 45.11 | 1.40 | 31 |
| Feb | 467.15 | 16.11 | 42.24 | 1.15 | 29 |
| Mar | 434.76 | 14.02 | 44.68 | 1.13 | 31 |
| Apr | 464.42 | 15.48 | 45.38 | 1.14 | 30 |
| May | 687.10 | 22.16 | 48.00 | 1.19 | 31 |
| Jun | 941.94 | 31.40 | 128.00 | 1.26 | 30 |
| Jul | 808.59 | 26.08 | 48.00 | 2.68 | 31 |
| Aug | 797.54 | 25.73 | 48.00 | 2.94 | 31 |
| Sep | 673.00 | 22.43 | 61.00 | 1.17 | 30 |
| Oct | 573.22 | 18.49 | 47.00 | 1.18 | 31 |
| Nov | 491.00 | 16.37 | 41.00 | 1.16 | 30 |
| Dec | 552.12 | 17.81 | 48.00 | 1.34 | 31 |
| Total | 7366.76 | 241.44 | 646.41 | 17.73 | 366 |
| Avg | 613.90 | 20.12 | 53.87 | 1.48 | 31 |
| Max | 941.94 | 31.40 | 128.00 | 2.94 | 31 |
| Criteria | | | 110.88 | 1.28 | |

Drinking-Water System Number:

220002954

Drinking-Water System Name:

KING'S BAY DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-119 Issue 2

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW4

Source Type:

Drilled

Drinking Water Permit to Take Water No:

2842-8B8M9T

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 495.57 | 15.99 | 34.74 | 2.00 | 31 |
| Feb | 424.53 | 14.64 | 63.75 | 2.00 | 29 |
| Mar | 389.99 | 12.58 | 29.92 | 1.99 | 31 |
| Apr | 521.05 | 17.37 | 34.26 | 2.01 | 30 |
| Мау | 913.71 | 29.47 | 84.00 | 2.00 | 31 |
| Jun | 985.69 | 32.86 | 123.00 | 3.08 | 30 |
| Jul | 813.31 | 26.24 | 113.00 | 3.08 | 31 |
| Aug | 648.06 | 20.91 | 68.00 | 2.99 | 31 |
| Sep | 513.00 | 17.10 | 41.00 | 2.03 | 30 |
| Oct | 546.81 | 17.64 | 93.00 | 2.02 | 31 |
| Nov | 411.44 | 13.71 | 38.40 | 2.04 | 30 |
| Dec | 554.03 | 17.87 | 51.00 | 2.39 | 31 |
| Total | 7217.19 | 236.37 | 774.07 | 27.62 | 366 |
| Avg | 601.43 | 19.70 | 64.51 | 2.30 | 31 |
| Max | 985.69 | 32.86 | 123.00 | 3.08 | 31 |
| Criteria | | | 176.75 | 2.03 | |



February 17, 2017

Ms Helena Milchin-Raposo Public Works – Contract Coordinator Water/Wastewater City of Kawartha Lakes 12 Peel St. Lindsay, ON

Re: Summary Report - Safe Drinking Water Act - Kinmount DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Kinmount DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely

Julie Preslie Process Compliance Technician Kawartha Hub Ontario Clean Water Agency (705) 738-9734 jpreslie@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Kinmount Drinking Water System (DWS), published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Kinmount DWS is categorized as a Small Municipal Residential Drinking Water System. This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|----------------------------------|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | 1 Total Coliform in distribution sample | 19-Oct-2016 | Resample location, upstream & downstream. | Complete |
| Municipal Drinking Water Licence 141- 121 | No failures to report | | | |
| Drinking Water Works Permit 141-221 | No failures to report | | | |
| Permit to Take Water #7728- 7JEHET | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

MOECC compliance inspection for 2016 was conducted on July 6, 2016. No issues were identified.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find the 2016 Performance Assessment Report, the Facility Flow Summary Report and a summary of Raw Water Flow Rates for the Kinmount DWS. These summaries contain all required flow information.

The maximum daily volume Kinmount DWS is permitted to supply is 340m³/day. The maximum volume per day in 2016 for Train 1 was 52.86m³/day and the average



volume per day was 12.65m³/day. Train 2 max volume was 62.50m³/day with an average daily volume of 12.78m³/day.

The maximum flow rate Kinmount DWS is permitted to take is 5.9L/sec. (Note that the permit to take water allows for 354L/min which equals 5.9L/s provided the daily taking limit of 340m³/day is not exceeded.) The maximum flow rate in 2016 for Train 1 was 5.0L/s and the average flow rate was 0.15L/sec. The max flow rate for Train 2 was 5.0L/s and the average flow rate was 0.15L/s.

The rated capacity for the Kinmount DWS is 340m³/day. The maximum daily treated flow in 2016 was 107.11m³. The average daily treated flow in 2016 was 38.57m³.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Attachments

End

Ontario Clean Water Agency Performance Assessment Report Water

n: 01/01/2016 to 31/12/2016

Facility: [6261] KINMOUNT DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total-> | <-Avg -> | <-Max> | <-Min-> | <-Criteria-> |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|----------|---------|---------|--------------|
| Flows: | | | | | | | | | - | | | | | | | | |
| Raw Flow: Monthly Total - RW (m²) | 609.05 | 605 66 | 634.14 | 623.99 | 782.79 | 768 09 | 977 25 | 986 03 | 955 77 | 987.85 | 646 05 | 743.62 | 9318.29 | | | | |
| Raw Flow: Monthly Total - RW1 (m*) | 309.98 | 297.82 | 314.85 | 302.07 | 389.56 | 382.24 | 488 17 | 488.93 | 477.04 | 479.83 | 332 55 | 372.59 | 4635.63 | | | | |
| Raw Flow: Monthly Total - RW2 (m*) | 299.07 | 307.84 | 319.29 | 321.92 | 393.23 | 383.85 | 489.08 | 497.10 | 478.73 | 508.02 | 313 50 | 371.03 | 4682 66 | | | | |
| Raw Flow: Monthly Avg - RW (m³/d) | 19.65 | 20.88 | 20,46 | 20.80 | 25.25 | 25.54 | 31.52 | 31.81 | 31.86 | 31.87 | 21.54 | 23.99 | | 25.43 | | | 4 |
| Raw Flow: Monthly Avg - RW1 (m³/d) | 10.00 | 10.27 | 10.16 | 10.07 | 12.57 | 12.74 | 15.75 | 15.77 | 15.90 | 15.48 | 11 09 | 12.02 | | 12 65 | | | |
| Raw Flow: Monthly Avg - RW2 (m*/d) | 9,65 | 10.62 | 10.30 | 10.73 | 12.68 | 12.80 | 15.78 | 16.04 | 15.96 | 16.39 | 10.45 | 11.97 | | 12.78 | | | A |
| Raw Flow; Monthly Max - RW (m1/d) | 43.03 | 36.21 | 51.17 | 47.91 | 90 95 | 39.68 | 52.85 | 45.23 | 57 25 | 9B 39 | 32.89 | 42.75 | | | 98.39 | | 340 00 |
| Raw Flow: Monthly Max - RW1 (m1/d) | 33.92 | 17.16 | 25.04 | 18.71 | 46.03 | 19.56 | 26.27 | 23.01 | 30.48 | 52.86 | 18.57 | 23.04 | | | 52 86 | | 5 h |
| Raw Flow: Monthly Max - RW2 (m³/d) | 25 86 | 20.28 | 26.13 | 29.20 | 44.92 | 21.72 | 26 71 | 24 20 | 27.69 | 62.50 | 17.66 | 19.71 | | | 62 50 | | |
| Treated Flow: Monthly Total - TW (m*) | 1035,66 | 1031.21 | 1098.71 | 986.45 | 1177.26 | 1145.98 | 1392.95 | 1401.47 | 1335.47 | 1303.87 | 1056.49 | 1160.26 | 14125.78 | | | | |
| Treated Flow: Monthly Avg - TW (m³/d) | 33.41 | 35,56 | 35,44 | 32.88 | 37.98 | 38.20 | 44 93 | 45.21 | 44.52 | 42.06 | 35 22 | 37.43 | | 38 57 | | | |
| Treated Flow: Monthly Max - TW (m ⁹ /d) | 36.88 | 50.53 | 56,15 | 37,78 | 97.74 | 47.74 | 63.35 | 55.21 | 76.49 | 107.11 | 39.37 | 42.59 | | | 107 11 | | 340.00 |
| Turbidity: | | 1 1 | | | | | | | | | | | | | | | |
| Raw; Max Turbidity - RW (NTU) | 0.84 | 0.94 | 1.37 | 1,85 | 1.17 | 1.66 | 2.78 | 1.48 | 1.96 | 2.71 | 2.09 | 1.38 | | | 2.78 | | |
| Filter Eff: Min Turbidity - Fitt1 (NTU) | 0.02 | 0.03 | 0.02 | 0.00 | 0.02 | 0.01 | 0.02 | 0.02 | 0.00 | 0.02 | 0.02 | 0.01 | | | | 0.00 | |
| Filter Eff; Min Turbidity - Filt2 (NTU) | 0.02 | 0.02 | 0.02 | 0.00 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | | | | 0.00 | Y . |
| Filter Eff: Max Turbidity - Filt1 (NTU) | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.05 | 2.05 | 0 39 | 0.46 | 0.42 | | | 2.06 | | 1.00 |
| Filter Eff: Max Turbidity - Filt2 (NTU) | 1.00 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.08 | 2.06 | 2.06 | 2.06 | 2.03 | | | 2.06 | | 1.00 |
| Chemical Parameters: | | | | | | | | | | | | | 5 | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | < 0.003 | | | < 0.003 | | | | | < 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 0.084 | | | 0.131 | | | 0.096 | | | 0.024 | | | | | 0.131 | | 10 |
| Distribution: Max THM - DW (µg/l) | 72 | 1 | | 49 | | 10 0 | 68 | | | 64 | | | | 63 | 72 | | 100 |
| Chlorine Residuals: | | | | | | | | | | | | 0 | | | | | |
| TW: Min Free Ci2 Resid - CW (mg/L) | 1.26 | 1.50 | 0.37 | 1.26 | 0.51 | 1,06 | 0.00 | 0.99 | 0.00 | 0.20 | 0.50 | 0.12 | | | | 0.00 | 0.80 |
| TW: Max Free C12 Resid - CW (mg/L) | 2.30 | 2.23 | 1.93 | 1.98 | 2.03 | 1.97 | 2 09 | 2.03 | 5.00 | 3.12 | 3.68 | 2.15 | | | 5.00 | | |
| Dist: Min Free Cl2 Resid - DW (mg/L) | 0.16 | 0.67 | 0.62 | 0.93 | 0.89 | 1.20 | 0.94 | 0.94 | 1.11 | 0.89 | 0.81 | 0.94 | | | | 0.16 | 0.05 |
| Dist: Max Free CI2 Resid - DW (mg/L) | 1.66 | 1.72 | 1.48 | 1.59 | 1.80 | 1.46 | 1.68 | 1.40 | 1.52 | 1.65 | 1.31 | 1.34 | | | 1.80 | | |
| Bacti Samples Collected: | (i) | | | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - RW | 2 | 3 | 2: | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 26 | | | | |
| Treated Bacti: # of samples - TW | | | | | | | | | | 1 1 | | | | 8 | | | |
| Dist Bacti: # of samples - DW | 4 | 5 | 4 | 4 | 5 | 74 | 4 | 5 | 4 | 7 | 4 | - 4 | 54 | | | | |
| Treated Bacti: # of TC exceedances - TW | | | | | | | | | | 0 | | | 0 | | | | 0 |
| Treated Bacti: # of EC exceedances - TW | | | | | | | | | | 0 | | | 0 | | | | 0 |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 | 0 | 1 | 0 | 0 | 1 | | | | 0 |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 |

Drinking-Water System Number: 260075231

Drinking-Water System Name: KINMOUNT DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Small Municipal Residential
Municipal Drinking Water License: 141-121 Exp Jul 25, 2021

Period being reported: 01/2016 12/2016

Raw Water

Raw Water (Source Name) Train 1 (RW1)

Source Type: Surface Water - Burnt River

Drinking Water Permit to Take Water No: 7728-7JEHET

| | Monthly Flow Total | Daily Flow | Daily Flow | Daily Flow | | |
|----------|--------------------|------------------|------------|----------------|--|--|
| Month | (m3/month) | Average (m3/day) | Maximum | Peak Flow Rate | | |
| | (ms/month) | Average (m5/day) | (m3/day) | (L/sec) | | |
| Jan | 309.98 | 10.00 | 33.92 | 3.82 | | |
| Feb | 297.82 | 10.27 | 17.16 | 3.15 | | |
| Mar | 314.85 | 10.16 | 25.04 | 3.70 | | |
| Apr | 302.07 | 10.07 | 18.71 | 5.00 | | |
| May | 389.56 | 12.57 | 46.03 | 3.09 | | |
| Jun | 382.24 | 12.74 | 19.56 | 3.15 | | |
| Jul | 488.17 | 15.75 | 26.27 | 3.23 | | |
| Aug | 488.93 | 15.77 | 23.01 | 3.77 | | |
| Sep | 477.04 | 15.90 | 30.46 | 3.77 | | |
| Oct | 479.83 | 15.48 | 52.86 | 3.65 | | |
| Nov | 332.55 | 11.09 | 18.57 | 3.22 | | |
| Dec | 372.59 | 12.02 | 23.04 | 3.02 | | |
| Total | 4635.63 | | | | | |
| Avg | 386.30 | | | | | |
| Мах | 488.93 | | 52.86 | 5.00 | | |
| Criteria | | | 340.00 | 5.90 | | |

Drinking-Water System Number:

260075231

Drinking-Water System Name:

KINMOUNT DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-121 Exp Jul 25, 2021

01/2016

Period being reported:

12/2016

Raw Water

Raw Water: Burnt River

Train 2 (RW2)

Source Type:

Surface Water - Burnt River

Drinking Water Permit to Take Water No:

7728-7JEHET

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|
| Jan | 299.07 | 9.65 | 25.86 | 3.86 |
| Feb | 307.84 | 10.62 | 20.28 | 3.05 |
| Mar | 319.29 | 10.30 | 26.13 | 3.45 |
| Apr | 321.92 | 10.73 | 29.20 | 5.00 |
| May | 393.23 | 12.68 | 44.92 | 3.03 |
| Jun | 383.85 | 12.80 | 21.72 | 3.02 |
| Jul | 489.08 | 15.78 | 26.71 | 3.03 |
| Aug | 497.10 | 16.04 | 24.20 | 3.22 |
| Sep | 478.73 | 15.96 | 27.69 | 3.29 |
| Oct | 508.02 | 16.39 | 62.50 | 3.70 |
| Nov | 313.50 | 10.45 | 17.66 | 3.24 |
| Dec | 371.03 | 11.97 | 19.71 | 3.02 |
| Total | 4682.66 | | | |
| Avg | 390.22 | | | |
| Max | 508.02 | | 62.50 | 5.00 |
| Criteria | | | 340.00 | 5.90 |

Ontario Clean Water Agency Time Series Info Report

From: 01/01/2016 to 31/12/2016

Facility Org Number:

6261

Facility Works Number:

260075231

Facility Name:

KINMOUNT DRINKING WATER SYSTEM

Facility Owner:

Municipality: City of Kawartha Lakes

Facility Classification:

Class 2 Water Treatment

Service Population:

70.0

Total Design Capacity:

340.0 m3/day

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | Avg | Max |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|
| RW1 / Flow Rate - I/s | | | | | | | | | | | | | | |
| Max OL | 3.82 | 3,15 | 3.70 | 5.00 | 3.09 | 3,15 | 3.23 | 3.77 | 3.77 | 3,65 | 3.22 | 3,02 | | 5.00 |
| Mean OL | 0.12 | 0,12 | 0.14 | 0.12 | 0.15 | 0.17 | 0.18 | 0.18 | 0.18 | 0.18 | 0.13 | 0.14 | 0,15 | |
| RW2 / Flow Rate - I/s | | | | | | | | | | | | | | |
| Max OL | 3,86 | 3.05 | 3.45 | 5.00 | 3.03 | 3.02 | 3.03 | 3,22 | 3.29 | 3.70 | 3,24 | 3.02 | | 5.00 |
| Mean OL | 0.11 | 0.12 | 0.12 | 0.12 | 0.15 | 0.15 | 0.18 | 0.19 | 0.18 | 0.19 | 0.12 | 0.14 | 0.15 | |

SCHEDULE 22 REPORT

Lindsay Drinking Water System - 2016

This report is a summary of water quantity and quality information for the Lindsay Drinking Water System, published in accordance with the Safe Drinking Water Act, 2002. O. Reg 170/03, Schedule.22 for the reporting period of January 1, 2015 to December 31, 2015.

Lindsay Drinking Water System is categorized as a Large Municipal Residential Drinking Water System.

What the Report contains

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) For each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. dates) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|--|---|---|--|
| Safe Drinking Water Act | Adjustment of minimum Cl2 residual was not documented | Jan 15/16 & July 16/16 | The OIC ensure to record all process changes. Also, Lindsay DWS staff are provided with Logbook Record training | Jan 6, 2017 |
| Ontario Regulations (eg. O.Reg. 170/03, O.Reg. 903) | ORO was not designated for each subsystem | n/a | CKL shall provide the undersigned Provincial Officer a copy of the ORO designation procedure for the Lindsay DWS & ORO on-call sched. | Resolved Jan 6, 2017 |

| | | | | |
|---|------------|---|---------------------------|--|
| 14 TC in distribution | Sept 08/16 | Flush & Resample | Resolved on Sept 08/16 | |
| 1 TC in distribution | Sept 09/16 | Flush & Resample | Resolved on Sept 09/16 | |
| Category 2 Main Break | Oct 11/16 | Repair, flush, chlorinate and sample | Resolved on Oct 11/16 | |
| .09 NTU in distribution during flushing | Oct 12/16 | Opened valve up and flushed, sampled | Resolved on Oct 12/16 | |
| Generator Fail = low pressure | Jan 10/16 | Restored power, flushed, sampled | Jan 10/16 | |
| 0 chlorine residual at tower | Jun 7/16 | Check electrical, restore and sample | Jun 7/16 | |
| 0 chlorine residual at tower | June 8/16 | Repair analyzer, restore and sample | Jun 8/16 | |
| 0 chlorine at plant | Aug 10/16 | Repair, restore and sample | Aug 10/16 | |

| | 0 chlorine at tower | Aug 24/16 | Repair equipment, sample | Aug 24/16 | | |
|---|------------------------|-----------|--------------------------------|-----------|--|--|
| Municipal Drinking Water Licence #141- 120 | None to report | n/a | n/a | n/a | | |
| Drinking Water Works Permit #141-220 | None to report. | n/a | n/a | n/a | | |
| Provincial Officer's Order No. | None to report. | n/a | n/a | n/a | | |

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Lindsay Drinking Water System which contains all required flow information.

Table A. Treated Water Summary

| Month | Total Flow (m3/month) | Average Monthly Flow (m3/day) | Max. Daily Flow (m3/day) | Max. Design Capacity Flow Rate (m3/day) | Daily Instantaneous Peak Flow Rate (L/s) |
|----------|--------------------------|--|-----------------------------------|---|---|
| January | 190,440 | 6,143 | 7,378 | 22,730 | 212 |
| February | 184,186 | 6,351 | 7,421 | 22,730 | 211 |
| March | 194,630 | 6,278 | 7,883 | 22,730 | 173 |
| April | 189,206 | 6,307 | 7,531 | 22,730 | 221 |
| May | 228,043 7 | | 9,708 | 22,730 | 217 |
| June | 249,867 | 8,329 | 10,603 | 22,730 | 394 |

| July | 260,860 | 8,415 | 10,967 | 22,730 | 209 |
|-----------|-----------|-------|--------|--------|-----|
| August | 265,029 | 8,549 | 11,938 | 22,730 | 222 |
| September | 264,353 | 8,812 | 13,866 | 22,730 | 230 |
| October | 230,566 | 7,438 | 12,818 | 22,730 | 216 |
| November | 189,124 | 6,304 | 9,108 | 22,730 | 216 |
| December | 188,873 | 6,093 | 7,435 | 22,730 | 169 |
| TOTAL | 2,635,177 | | | W-1 | |

Table B. Annual Water Taking Record

| Month | Raw Water Total Monthly Taking (m3/month) | Raw Water Average Monthly Taking (m3/day) | Raw Water Max. Daily Taking (m3/day) | PTTW* Limit (m3/day) | |
|-----------|--|---|---|-------------------------|--|
| January | 230,974 | 7,451 | 9,207 | 30,685 | |
| February | 223,413 | 7,704 | 9,365 | 30,685 | |
| March | 236,527 | 7,630 | 9,279 | 30,685 | |
| April | 225,974 | 7,532 | 8,867 | 30,685 | |
| May | 270,414 | 8,723 | 11,056 | 30,685 | |
| June | 292,216 | 9,741 | 11,914 | 30,685 | |
| July | 302,635 | 9,762 | 12,513 | 30,685 | |
| August | 304,249 | 9,814 | 13,247 | 30,685 | |
| September | 304,953 | 10,165 | 15,894 | 30,685 | |
| October | 283,135 | 9,134 | 15,045 | 30,685 | |
| November | November 239,628 | | 10,964 | 30,685 | |
| December | 246,030 | 7,936 | 11,004 | 30,685 | |
| TOTAL | 3,160,148 | (1) (1) (1) (1) | HAPTHA CHARLE | ISTORY DEMONSE. | |

*Note: PTTW = Permit To Take Water



February 17, 2017

Ms. Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON
K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Woods of Manilla II DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Woods of Manilla II DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

This report is a summary of water quality information for the Woods of Manilla DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Woods of Manilla II DWS is categorized as a Small Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|---|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Low distribution pressure | June 8, 2016 | Boil Water Advisory notices hand delivered to residents. Flushed system and collected bacteriological samples. Boil Water Advisory rescinded June 11, 2016. | |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|--|---|--|
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg | Broken seal on Well 2. | Identified June 15, 2016 | The cap on well 2 was replaced by a licenced well technician on June 20, 2016. | Complete |
| 903 | | | Training on the monthly well inspection work order requirements was completed with staff. | |
| Permit to Take Water | No failures to report | | | |
| 3458-7JBRTZ | | | | |
| Municipal Drinking Water Licence | No failures to report | | | |
| 141-106 | | | | |
| Drinking Water Works Permit | No failures to report | | | |
| 141-206 | | | | |
| Provincial Officer's Order | No failures to report | | | |

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- 1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Note: Well 1 was not in production in 2016.

Please find attached reports for the Woods of Manilla DWS which contains all required flow information.



The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of these limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Ontario Clean Water Agency Performance Assessment Report Water

From

01/01/2016 to 31/12/2018

Facility: [6868] WOODS OF MANILLA II DRINKING WATER SYSTEM
Works: [6668] WOODS OF MANILLA II DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total-> | K-Avg> | KMax,> | <~Min,> | <criteria></criteria> |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|--------|--------|---------|-----------------------|
| Flows: | | | | | 1 | | | | | | | | | 1 | | | |
| Raw Flow: Monthly Total - Well2 (m²) | 1030.34 | 965,22 | 990,3 | 1004.32 | 1410.97 | 1507,78 | 1324.13 | 1240.69 | 1017.28 | 1074.67 | 944.44 | 1001 | 13511.54 | | | | |
| Raw Flow: Monthly Avg - Well2 (m1/d) | 33.24 | 33,28 | 31,95 | 33,48 | 45,52 | \$0.26 | 42,71 | 40.03 | 33,91 | 34,67 | 31,46 | 32,20 | | 36,9 | | | |
| Raw Flow: Monthly Max - Well2 (m'/d) | 51,36 | 72.37 | 50 98 | 50,83 | 70,73 | 85.37 | 72.01 | 57.63 | 47.75 | 47.58 | 48.9 | 52.79 | | | 65.37 | | 157 |
| Treated Flow: Monthly Total - TW (m*) | 952,44 | 881,02 | 925,17 | 935,12 | 1346,75 | 1449.52 | 1266.67 | 1168.59 | 956,59 | 983.66 | 888,7 | 939.06 | 12693,39 | | | | |
| Treated Flow: Monthly Avg - TW (m'ld) | 30,72 | 30.38 | 29.84 | 31,17 | 43 44 | 48.32 | 40.86 | 37.7 | 31.89 | 31.73 | 29,62 | 30.29 | | 34.66 | | | |
| Treated Flow: Monthly Max - TW (m*/d) | 38,79 | 44.34 | 39,17 | 43.8 | 76,85 | 85.37 | 68.49 | 49.97 | 45,11 | 45.57 | 41,13 | 42.40 | | | 85.37 | | 157 |
| Turbidity: | | | | | | | | | | | | | | | | | |
| Raw: Max Turbidity - Well2 (NTU) | 0.29 | 0,3 | 0,69 | 0.36 | 0,32 | 0,3 | 0,26 | 0.65 | 0.65 | 0.24 | 0.32 | 0.32 | | | 0.69 | | |
| Treated: Min Turbidity - TW (NTU) | 0,001 | 0.001 | 0,001 | 0.001 | 0.001 | 0 | 0 | 0.005 | 0 | 0 | 0 | 0 | | | | 0: | |
| Treated: Max Turbidity - TW (NTU) | 1,997 | 1.995 | 1,995 | 1,996 | 1.994 | 1,9 | 1,881 | 98,0 | 1.91 | 1,19 | 1,802 | 1.86 | | | 1,997 | | |
| Chemical Parameters: | | | | | | | | | | | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | < 0.003 | | | < 0.003 | | | | | 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 0,016 | | | 0,016 | | | 0.014 | | | 0.013 | | | | | 0.016 | | 10 |
| Distribution: Max THM - DW (pg/l) | 6 | | | 11 | | | 13 | | | 8,1 | | | | | 13 | | 100 |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 0.031 | 0.036 | 0.033 | 0,038 | 1,028 | 0,6 | 0.34 | 0.86 | 0,13 | 0 | 0 | 0,34 | | | | 0 | |
| Treated: Max Free Ct2 Resid - TW (mg/L) | 1,649 | 1,741 | 2.324 | 1,607 | 1,731 | 2.17 | 2.224 | 2.286 | 2.09 | 5.15 | 5.11 | 2.22 | | | 5.15 | | |
| Dist: Min Free CI2 Resid - DW (mg/L) | 1,2 | 1,22 | 1,21 | 1,07 | 1,26 | 1,08 | 1.25 | 1,35 | 1,37 | 1,11 | 1,71 | 1,48 | | | | 1.07 | 0,05 |
| Dist: Max Free CI2 Resid - DW (mg/L) | 1,46 | 1.56 | 2.04 | 1.46 | 1,47 | 2.22 | 2.02 | 1.87 | 2.04 | 2.07 | 2.12 | 1.92 | | | 2.22 | | |
| Bacti Samples Collected: | | | d I | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - Well2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 27 | | | | |
| Treated Bacti: # of samples - TW | | | 8 | | | 1 | | | | | | | | | | | |
| Dist Bacti: # of samples - DW | 4 | 7 | .4 | 4 | 5 | | - 4 | 5 | .4 | 5 | 34 | 4 | 56 | | | | |
| Treated Bacti: # of TC exceedances - TW | | | | 9 - 3 | | 0 | | | | | 710 | | 0 | | | | |
| Treated Bacti: # of EC exceedances - TW | | | | | | 0 | | | | | | | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .0 | 0 | 0 | | | | (B) |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | . 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Raw Water Flow Summary

Drinking-Water System Number:

210002218

Drinking-Water System Name:

WOODS OF MANILLA II DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-106

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

Well2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

3458-7JBRTZ

| Month | Monthly Flow Total | Daily Flow Average | Daily Flow Maximum | Daily Flow Average Flow | Daily Flow Peak Flow Rate |
|----------|--------------------|-----------------------|-----------------------|----------------------------|------------------------------|
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 1030.34 | 33.24 | 51.36 | 1.27 | 6.32 |
| Feb | 965.22 | 33.28 | 72.37 | 1.26 | 5.92 |
| Mar | 990.30 | 31.95 | 50.98 | 1.27 | 5.66 |
| Арг | 1004.32 | 33.48 | 50.83 | 1.36 | 6.73 |
| May | 1410.97 | 45.52 | 70.73 | 1.24 | 6.56 |
| Jun | 1507.78 | 50.26 | 85.37 | 1.22 | 5.94 |
| Jul | 1324.13 | 42.71 | 72.01 | 0.50 | 1.36 |
| Aug | 1240.89 | 40.03 | 57.83 | 1.25 | 6.99 |
| Sep | 1017.28 | 33.91 | 47.75 | 1.27 | 6.42 |
| Oct | 1074.87 | 34.67 | 47.58 | 1.26 | 5.83 |
| Nov | 944.44 | 31.48 | 48.90 | 1.21 | 6.30 |
| Dec | 1001.00 | 32.29 | 52.79 | 1.27 | 1.84 |
| Total | 13511.54 | | | | 22 |
| Avg | 1125.96 | 36.90 | | 1.20 | 158 |
| Max | 1507.78 | | 85.37 | 348 | 6.99 |
| Criteria | | 187 | 157.00 | S##3 | 1.82 |

Treated Water Flow Summary

Drinking-Water System Number:

210002218

Drinking-Water System Name:

WOODS OF MANILLA II DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-106

Period being reported:

01/2016 - 12/2016

Treated Water (Source Name)

TW

| | Monthly Flow Total | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|--------------------|------------|------------|---------------|----------------|
| Month | - | Average | Maximum | Average Flow | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/sec) | (L/sec) |
| Jan | 952.44 | 30.72 | 39.79 | 0.36 | 2.33 |
| Feb | 881.02 | 30.38 | 44.34 | 0.37 | 2.50 |
| Mar | 925.17 | 29.84 | 39.17 | 0.35 | 2.20 |
| Apr | 935.12 | 31.17 | 43.80 | 0.37 | 5.00 |
| Мау | 1346.75 | 43.44 | 76.85 | 0.51 | 2.97 |
| Jun | 1449.62 | 48.32 | 85.37 | 0.57 | 4.84 |
| Jul | 1266.67 | 40.86 | 68.49 | 0.48 | 2.86 |
| Aug | 1168.59 | 37.70 | 49.97 | 0.44 | 2.74 |
| Sep | 956.59 | 31.89 | 45.11 | 0.37 | 2.19 |
| Oct | 983.66 | 31.73 | 45.67 | 0.40 | 5.00 |
| Nov | 888.70 | 29.62 | 41.13 | 0.35 | 2.36 |
| Dec | 939.06 | 30.29 | 42.49 | 0.36 | 2.29 |
| Total | 12693.39 | - | <u> </u> | PIE | 50 |
| Avg | 1057.78 | 34.66 | | 0.41 | |
| Max | 939.06 | 72 | 85.37 | 7 <u>44</u> (| 5.00 |
| Criteria | (#4) | ** | 157.00 | · ee | 1.82 |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Manorview DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Woods of Manorview DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Manorview DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Manorview DWS is categorized as a Small Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|--|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | No failures to report | | | |
| Drinking Water Works Permit 141-218 | No failures to report | | | |
| Municipal Drinking Water Licence 141-118 | Low chlorine residual <0.20mg/L | 2016/02/07 – 2016/02/11 | Collect distribution samples. | Complete |
| | Low chlorine residual <0.20mg/L due to analyzer fault. | 2016/04/08 | Take handheld residuals. Repair analyzer probe. | Complete |
| Permit to Take Water 6774- 7JCKC8 | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

The 2016 Compliance Inspection report was conducted on August 10, 2017. There were no failures to report.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Manorview DWS that contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Ontario Clean Water Agency Performance Assessment Report Water

om: 01/01/2016 to 51/12/2016

Report extracted 02/01/2017 16:07
Facility: [6665] MANORVIEW DRINKING WATER SYSTEM
Works: [6665] MANORVIEW DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <total-></total-> | <-Avg> | <-Max -> | <mn></mn> |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|--------|----------|-----------|
| Flows: | | | | | | | 13-1-1 | T | | | | | | | | |
| Raw Flow: Monthly Total - RW1 (m²) | 258.99 | 239.84 | 246.92 | 262 25 | 334 | 386 | 371 | 271 | 234.25 | 247.87 | 230.67 | 271.58 | 3354 37 | | | T |
| Raw Flow: Monthly Total - RW2 (m²) | 268 | 237.71 | 246.15 | 1110 | 340 | 388 | 366 | 292 | 248.05 | 245 | 262 | 310 | 4318.91 | | | |
| Raw Flow: Monthly Avg - RWI (m'ld) | 6.35 | 8.27 | 7.97 | 8.74 | 10.77 | 12.67 | 11.97 | 8.74 | 7.81 | 8 | 7.69 | 8.76 | | 9.16 | | |
| Raw Flow: Monthly Avg - RW2 (m*/d) | 8.65 | 3.2 | 7.94 | 37 | 10.97 | 12.93 | 11,61 | 9.42 | 8.27 | 7.9 | 8.73 | 10,19 | | 11.83 | | |
| Raw Flow: Monthly Max - RW1 (m*id) | 15.82 | 15.68 | 17.34 | 19 | 29 | 24 | 23 | 13 | 16 | 10 | 11 | 16 | | | 29 | |
| Raw Flow: Monthly Max - RW2 (m ³ /d) | 16.75 | 15.21 | 10.51 | 842 | 41 | 30 | 25 | 22 | 17 | 17 | 17 | 18 | | | 842 | |
| Treated Flow: Monthly Total - TW (m²) | 546.82 | 494.89 | 517.36 | 536.25 | 689 | 876 | 727 | 564 | 500.24 | 526.18 | 494 | 597 | 7068 74 | 1 1 | | |
| Treated Flow: Monthly Avg - TW (m/hd) | 17.84 | 17.07 | 16.00 | 17.88 | 22 23 | 29.2 | 23,45 | 18.19 | 16.67 | 16.97 | 16,47 | 19.26 | | 19.31 | | 1 |
| Treated Flow: Monthly Max - TW (m/ld) | 22.8 | 23.39 | 22.78 | 27 | 60 | - 51 | 44 | 30 | 22 | 44 | 23 | 35 | | 1 | 61 | T |
| Raw Flow: Monthly Total - RW total raw (m*) | 527.7 | 460.77 | 489.02 | 526.91 | 671.26 | 766.13 | 700.01 | 551,71 | 485.27 | 478.76 | 482.42 | 584.1 | 6724.06 | | | |
| Raw Flow: Monthly Avg - RW total raw (m*ld) | 17.02 | 15.58 | 15.77 | 17.56 | 21 65 | 25.54 | 22.58 | 17.8 | 16,18 | 15.44 | 15.08 | 18.2 | | 18.37 | | |
| Raw Flow: Monthly Max - RW total raw (m*/d) | 25 35 | 24.25 | 25.93 | 27.05 | 56 77 | 44.35 | 41 94 | 30.87 | 24.62 | 26.31 | 25.4 | 35.14 | | | 56.77 | |
| Turbidity: | | | | | | | | | | | F 1000 | | | | | 100 |
| Raw: Max Turbidity - RWI (NTU) | 0.48 | 0.12 | 0.23 | 0.21 | 0.22 | 3.49 | 0.57 | 0.53 | 0.32 | 0.27 | 0.33 | 0.21 | | | 3.49 | |
| Raw: Max Turbidity - RW2 (NTU) | 0.33 | 0.15 | 0.17 | 0.17 | 0.31 | 0.42 | 0.44 | 0.4 | 0.51 | 0.31 | 0.29 | 0.32 | | 1 - 1 | 0.51 | |
| Filter Eff: Min Turbidity - Filt (NTU) | 0.02 | 0.02 | 0.02 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0 | 0 | 0.02 | | | | 0 |
| Filter Eff: Max Turbidity - Filt (NTU) | 0.89 | 0.17 | 0.47 | 0.22 | 0.51 | 0.21 | 0.662 | 1.63 | 0.664 | 0.354 | 1.0 | 0.47 | | | 1,63 | T |
| Cherrical Parameters: | | | S = 0 | | | | | | | | | | | 1 | | |
| Treated; Max Nitrite - TW (mg/L) | < 0.003 | | 1 | < 0.003 | | | ≤ 0.003 | | | < 0.003 | | | | | 0.003 | T |
| Treated: Max Nitrate - TW (mg/L) | 0.084 | | | 0.088 | | | 0.119 | | | 0.094 | | | | | 0.119 | |
| Distribution: Max THM - DW (µgfl) | 5.1 | | | 5.6 | | | -11 | | | 93 | | | | | 11 | |
| Chlorine Residuals: | | | | | | | 7-8 | | | | | | | | | |
| Treated: Min Free CI2 Resid - TW (mg/L) | 0.96 | 0 | 1.04 | 0 | 0.09 | 1.07 | 0.87 | 55.0 | 0.91 | 0 | :1 | 0.93 | | | | 0 |
| Treated: Max Free Ci2 Resid - TW (mg/L) | 1,28 | 2.21 | 1.31 | 2.93 | 1.43 | 1.96 | 1.25 | 1.22 | 1.27 | 1.93 | 1.28 | 1.26 | | | 2,93 | |
| Dist: Min Free Cl2 Resid - DW (mg/L) | 0.81 | 0.93 | 0.93 | 0.7 | 0.97 | 0.84 | 0.62 | 0.71 | 0.65 | 0.73 | 0.82 | 0.73 | | | | 0.62 |
| Dist: Max Free CI2 Resid - DW (mg/L) | 1.04 | 1.26 | 1.61 | 1.2 | 1.17 | 1.22 | 1.24 | 0.99 | 1.11 | 1.21 | 1.13 | 1.17 | | | 1.61 | |
| Bacti Samples Collected: | | | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - RW1 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | - 2/ | 2 | 2 | 2 | 27 | | | |
| Raw Bacti: # of samples - RW2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 27 | | | |
| Dist Bacti; # of samples - DW | 4 | 0 | 4 | 4 | 5 | 5 | 3 | 5 | 4 | 5 | 4 | 4 | 53 | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

Facility Flow Summary

Drinking-Water System Number:

260001864

Drinking-Water System Name:

MANORVIEW DRINKING WATER SYSTEM

12/2016

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-118

Period being reported:

01/2016

Raw Water

Raw Water (Source Name)

RW1

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6774-7JCKC8

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 258.99 | 8.35 | 15.82 | 2.86 | 31 |
| Feb | 239.84 | 8.27 | 15.68 | 2.86 | 29 |
| Mar | 246.92 | 7.97 | 17.34 | 2.79 | 31 |
| Apr | 262.25 | 8.74 | 19.00 | 2.86 | 30 |
| May | 334.00 | 10.77 | 29.00 | 2.86 | 31 |
| Jun | 386.00 | 12.87 | 24.00 | 2.81 | 30 |
| Jul | 371.00 | 11.97 | 23.00 | 2.85 | 31 |
| Aug | 271.00 | 8.74 | 13.00 | 2.84 | 31 |
| Sep | 234.25 | 7.81 | 16.00 | 2.82 | 30 |
| Oct | 247.87 | 8.00 | 10.00 | 2.81 | 31 |
| Nov | 230.67 | 7.69 | 11.00 | 2.84 | 30 |
| Dec | 271.58 | 8.76 | 18.00 | 2.84 | 31 |
| Total | 3354.37 | 109.94 | 211.84 | 34.04 | 366 |
| Avg | 279.53 | 9.16 | 17.65 | 2.84 | 31 |
| Max | 386.00 | 12.87 | 29.00 | 2.86 | 31 |
| Criteria | | | 301.00 | 3.48 | |

Facility Flow Summary

Drinking-Water System Number: 260001864

Drinking-Water System Name: MANORVIEW DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality **Drinking-Water System Category:** Small Municipal Residential

Municipal Drinking Water License: 141-118

Period being reported: 01/2016 12/2016

Raw Water

6774-7JCKC8

Raw Water (Source Name) RW2 Source Type: Drilled Drinking Water Permit to Take Water No:

Daily Flow Daily Flow Monthly Flow Total Daily Flow Number of Days Month Maximum **Peak Flow Rate** (m3/month) Average (m3/day) of Water Taking (m3/day) (L/sec) 31 Jan 268.00 8.65 16.75 2.74 29 Feb 237.71 8.20 2.71 16.21 31 Mar 246.15 7.94 10.51 2.66 30 1110.00 Apr 37.00 842.00 2.75 340.00 10.97 41.00 2.92 31 May 30 Jun 388.00 12.93 30.00 2.67 31 Jul 366.00 2.78 11.81 25.00 9.42 2.69 31 Aug 292.00 22.00 30 8.27 248.05 17.00 2.67 Sep Oct 7.90 2.64 31 245.00 17.00 30 Nov 262.00 8.73 17.00 2.69 2.74 31 Dec 316.00 10.19 18.00 4318.91 32.66 Total 142.01 1072.47 366 31 Avg 359.91 11.83 89.37 2.72 31 Max 1110.00 37.00 842.00 2.92 301.00 Criteria 3.48



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Mariposa Estates DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Mariposa Estates DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Mariposa Estates DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Mariposa Estates DWS is categorized as a Small Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act*, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|---|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | The Owner/Operating Authority shall ensure that continuous analysers are calibrated, maintained, and operated, in accordance with the manufacturer's instructions or 0. Reg 170/03 6-5(1)8&6-5(1)10 | 04/25/2016 05/24/2016 06/20/2016 | The Owner/Operating Authority provided operators with training on calibrating online analysers on October 5, 2016 | Complete |
| | Low chlorine residual reading due to wiring short in analyzer. Low system pressure | 05/15/2016 | Repaired analyzer and took samples. Restored pressure with water truck. | Complete |
| | due to leak. | | Repaired leaking pipe inside clearwell | |
| Drinking Water Works Permit 141- 217 | No failures to report | | | |

| Municipal Drinking Water Licence 141- 117 | No failures to report | | |
|---|-----------------------|--|--|
| Permit to Take Water 3245- 7JCJXZ | No failures to report | | |
| Provincial Officer's Order No. | No failures to report | | |

The 2016 Compliance Inspection occurred on November 10, 2016.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Mariposa Estates DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Ontario Clean Water Agency Performance Assessment Report Water

rem

01/01/2016 to 11/12/2016

Report extracted 02/01/2017 15:03

Facility: [6667] MARIPOSA ESTATES DRINKING WATER SYSTEM

Works: [8867] MARIPOSA ESTATES DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 97/2016: I | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | c-Total-> | <-/ig-> | 4-Mar> | c-Mn-o | <- Criteria-> |
|---|---------|---------|-----------|---------|---------|-----------|------------|---------|---------|---------|---------|---------|-----------|---------|-----------|--------|---------------|
| Flows | | | | | | | | 4 | | 8 | | | 51 | | 1 - 1 - 1 | | |
| Raw Flow; Monthly Total + RW1 (m²) | 499.72 | 417.24 | 416.92 | 274.56 | 366.06 | 495 | 603 | 624 | 594 | 428.07 | 601,07 | 501 | 6012.64 | | | | |
| Raw Flow: Monthly Total - RW2 (m²) | 581.9 | 539.35 | 518.34 | 630.98 | 632.33 | 819 | 743 | 773 | 737 | 505 | 802 | 666 | 8340.9 | | | | |
| Raw Flow: Monthly Avg - RW1 (m'ld) | 16.12 | 14,29 | 13.51 | 12,49 | 11.01 | 16.5 | 19.45 | 20.53 | 19,8 | 13.81 | 20.04 | 19.06 | | 16.43 | | | |
| Raw Flow: Monthly Avg - RW2 (m'ld) | 18,77 | 16,0 | 16,72 | 21.03 | 26.85 | 27.3 | 23.97 | 24,84 | 24.57 | 16,53 | 26.73 | 28 | | 22.86 | | | |
| Raw Flow: Monthly Max - RW1 (m'ltl) | 20.15 | 17,77 | 22.54 | 16 | 15 | 27 | 26 | 24 | 25 | 23 | 23 | 21 | | | 27 | | |
| Raw Flow: Monthly Max - RW2 (m*/d) | 25.04 | 22,03 | 21,47 | 30 | 34 | 35 | 32 | at: | 31 | 27 | 31 | 33 | | | 35 | | |
| Treated Flow: Monthly Total - TW (m²) | 903,14 | 804.55 | 779.25 | 836,82 | 1044 | 1137 | 1139 | 1191 | 1122 | 1146,76 | 1168 | 1240 | 12511.52 | | | | |
| Treated Flow: Monthly Avg - TW (m*ld) | 29,13 | 27,74 | 25,14 | 27.88 | 33,68 | 37,9 | 36.74 | 38,42 | 37,4 | 36.99 | 38.93 | 40 | | 34.16 | | | |
| Treated Flow: Monthly Max - TW (m*rd) | 39.61 | 33.94 | 30.65 | 38 | 57 | 58 | 51 | 48 | 46 | 62 | 44 | 45 | | | 62 | | |
| Raw Flow: Monthly Total - RW total raw (m*) | 1010,34 | 155.62 | 1200,26 | 884,02 | 1136,88 | 1280.47 | 1311.34 | 1356.66 | 1296.98 | 922.27 | 1375 | 1404,72 | 14337.76 | | | | |
| Raw Flow: Monthly Avg - RW total raw (m/ld) | 34.65 | 33.08 | 38.72 | 32.8 | 37.9 | 42.68 | 42.3 | 43.77 | 43.23 | 29.75 | 45.83 | 46.25 | | 39.26 | T | | 0.00 |
| Raw Flow: Monthly Max - RW total raw (m/hg) | 44.01 | 40,4 | 303 | 45.2 | 46.97 | 57.25 | 56.07 | 53.6 | 55.12 | 48.8 | 52.51 | 52.93 | | | 303 | | |
| Turbidity: | | | | | | | | | | | | | | | | | |
| Raw: Max Turbidity - RW1 (NTU) | 0.38 | 0.30 | 0.12 | 0.11 | 0.1 | 0.16 | 0.85 | 0.49 | 0.17 | 0.13 | 0.64 | 0.0 | | | 0.85 | | 3 |
| Raw: Max Turbidity - RW2 (NTU) | 0.24 | 0.26 | 0.09 | 0.6 | 0.07 | 0.2 | 0.64 | 0.76 | 90.0 | 0.11 | 0.25 | 0.37 | | | 0.76 | | |
| Treated: Min Turbidity - TW (NTU) | 0.058 | 0.003 | 0 | 0,034 | 0,043 | 0.041 | 0.041 | 0.043 | 0.044 | 0.048 | 0.191 | 0.221 | SI I | | | 0 | |
| Treated: Max Turbidity - TW (NTU) | 2 | 1.298 | 0.701 | 2 | 2 | 0.674 | 0.818 | 1.093 | 0.553 | 2.6 | 2 | 2 | | | 2.8 | | |
| Chemical Parameters: | | | | | | 1 1000 | | | 2000 | | | | 0 | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | 0.003 | × 0.003 - | 0.003 | < 0.003 | < 0.003 · | 0.003 | < 0.003 | < 0.003 | < 0.000 | < 0.003 | 4 0.003 | | | 0.003 | | |
| Treated: Max Nitrate - TW (mg/L) | 4.04 | 2.69 | 2.82 | 2.89 | 3.43 | 3.35 | 3.33 | 3.36 | 2.87 | 2.91 | 3.6 | 3,56 | | | 4.04 | | |
| Distribution: Max THM - DW (µg/l) | | | | -11 | | | | | | 13 | | | | | 13) | | |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | |
| Treated: Min Free CI2 Resid - TW (mg/L) | 0.043 | 0.01 | .0 | 0,85 | 0,012 | 5,49 | 0.769 | 1.626 | 1.77 | 0 | 1,72 | 1,62 | | | | 0 | |
| Treated: Max Free Ct2 Resid - TW (mg/L) | 1,769 | 1.97 | 3 242 | 3.233 | 4,655 | 2.71 | 2.192 | 2,705 | 2,77 | 4,548 | 2.76 | 2.292 | | | 4,655 | | |
| Dist: Min Free CD Resid - DW (mg/L) | 1.26 | 0.95 | 1.14 | 1,27 | 1,48 | 1.52 | 1,21 | 1,53 | 1,46 | 0.82 | 1.94 | 1,57 | | | | 0.52 | |
| Dist: Max Free Ct2 Regid - DW (mg/L) | 1.51 | 1,46 | 1.57 | 1,87 | 1.93 | 2,13 | 1.67 | 2.18 | 2.26 | 2.19 | 2.33 | 2.13 | | | 2.33 | | |
| Sacti Samples Collected: | | | | | 1-1 | | | | | | | 1 | | | | | |
| Raw Bacti: # of samples - RW1 | 2 | 1 | 3 | 3 | 3 | 2 | 2 | 2 | | 2 | 2 | 2 | 26 | | | | |
| Raw Bacti; # of samples - RW2 | 2 | - 31 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | - 2 | 24 | | | 1 | |
| Dist Bacti: # of samples - DW | 1 3 | 4 | 5 | 4 | 6 | 4 | 4 | 5 | 4 | 7 | 4 | 4 | 54 | | | | |
| Dist Bacti, # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 1 | 0 | 0 | 0 1 | a | 0 | | | | |

Facility Flow Summary

Drinking-Water System Number:

220012322

Drinking-Water System Name:

MARIPOSA ESTATES DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-117

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW1

Source Type:

Drilled

Drinking Water Permit to Take Water No:

3245-7JCJX2

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|--------------------------------|
| Jan | 499.72 | 16.12 | 20.15 | 0.36 | 31 |
| Feb | 417.24 | 14.39 | 17.77 | 0.35 | 29 |
| Mar | 418.92 | 13.51 | 23.54 | 0.33 | 31 |
| Apr | 374.56 | 12.49 | 16.00 | 3.00 | 30 |
| May | 366.06 | 11.81 | 15.00 | 0.24 | 31 |
| Jun | 495.00 | 16.50 | 27.00 | 0.44 | 30 |
| Jul | 603.00 | 19.45 | 26.00 | 0.36 | 31 |
| Aug | 624.00 | 20.13 | 24.00 | 0.36 | 31 |
| Sep | 594.00 | 19.80 | 25.00 | 0.35 | 30 |
| Oct | 428.07 | 13.81 | 23.00 | 0.37 | 31 |
| Nov | 601.07 | 20.04 | 23.00 | 0.35 | 30 |
| Dec | 591.00 | 19.06 | 21.00 | 0.30 | 31 |
| Total | 6012.64 | 197.10 | 261.46 | 6.81 | 366 |
| Avg | 501.05 | 16.43 | 21.79 | 0.57 | 31 |
| Max | 624.00 | 20.13 | 27.00 | 3.00 | 31 |
| Criteria | | | 72.00 | 0.83 | |

Facility Flow Summary

Drinking-Water System Number:

220012322

Drinking-Water System Name:

MARIPOSA ESTATES DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-117

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

3245-7JCJX2

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 581.90 | 18.77 | 25.04 | 0.94 | 31 |
| Feb | 539.35 | 18.60 | 22.63 | 0.48 | 29 |
| Mar | 518.34 | 16.72 | 21.47 | 1.52 | 31 |
| Apr | 630.98 | 21.03 | 30.00 | 5.00 | 30 |
| May | 832.33 | 26.85 | 34.00 | 0.54 | 31 |
| Jun | 819.00 | 27.30 | 35.00 | 0.55 | 30 |
| Jul | 743.00 | 23.97 | 32.00 | 0.74 | 31 |
| Aug | 773.00 | 24.94 | 31.00 | 0.79 | 31 |
| Sep | 737.00 | 24.57 | 31.00 | 0.76 | 30 |
| Oct | 505.00 | 16.83 | 27.00 | 2.19 | 30 |
| Nov | 802.00 | 26.73 | 31.00 | 0.52 | 30 |
| Dec | 868.00 | 28.00 | 33.00 | 1.11 | 31 |
| Total | 8349.90 | 274.31 | 353.14 | 15.13 | 365 |
| Avg | 695.83 | 22.86 | 29.43 | 1.26 | 30 |
| Max | 868.00 | 28.00 | 35.00 | 5.00 | 31 |
| Criteria | | | 66.00 | 0.76 | |



February 17, 2017

Ms Helena Milchin-Raposo Public Works – Contract Coordinator Water/Wastewater City of Kawartha Lakes 12 Peel St. Lindsay, ON

Re: Summary Report - Safe Drinking Water Act - Norland DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Norland DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely

Julie Preslie Process Compliance Technician Kawartha Hub Ontario Clean Water Agency (705) 738-9734 jpreslie@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Norland Drinking Water System (DWS), published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Norland DWS is categorized as a Small Municipal Residential Drinking Water System. This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--------------------------------------|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg | No failures to report | | | |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|--|--|--|
| 170/03, O.Reg 128/04, O.Reg 903 | | | | |
| Municipal Drinking Water Licence 141- 121 | No failures to report | | | |
| Drinking Water Works Permit 141-221 | No failures to report | | | |
| Permit to Take Water #7728- 7JEHET | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

MOECC compliance inspection for 2016-17 was not complete prior to issuance of this report.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find the 2016 Performance Assessment Report, the Facility Flow Summary Report and a summary of Raw Water Flow Rates for the Norland DWS. These summaries contain all required flow information.

The maximum daily volume Norland DWS is permitted to supply is 300m³/day. The maximum volume per day in 2016 for Train 1 was 93.01m³/day and the average volume per day was 32.46m³/day. Train 2 max volume was 88.31m³/day with an average daily volume of 30.82m³/day.



The maximum flow rate Norland DWS is permitted to take is 15L/sec. (Note that the permit to take water allows for 900L/min which equals 15L/s provided the daily taking limit of 300m³/day is not exceeded.) The maximum flow rate in 2016 for Train 1 was 3.10L/s and the average flow rate was 0.38L/sec. The max flow rate for Train 2 was 2.85L/s and the average flow rate was 0.36L/s.

The rated capacity for the Norland DWS is 264m³/day. The maximum daily treated flow in 2016 was 173.22m³. The average daily treated flow in 2016 was 71.20m³.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump startups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Attachments

End

Ontario Clean Water Agency Performance Assessment Report Water

orn: 01/01/2016 to 31/12/2016

Facility: [6262] NORLAND DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total-> | K-Avg -> | <-Max> | <min></min> | <critoria></critoria> |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|----------|---------|-------------|-----------------------|
| Flows: | | | | | | | | | | | | | | | | 1.0 | |
| Raw Flow: Monthly Total - RW (m*) | 2346.44 | 1746.58 | 1543.58 | 1540 04 | 1822.09 | 2023.16 | 2259.32 | 2289.35 | 1952.03 | 1841.87 | 1768.06 | 1941.10 | 23173.62 | | | | |
| Raw Flow: Monthly Total - RW1 (m²) | 1216.66 | 898.30 | 849.12 | 798 89 | 939.34 | 1051.06 | 1152.75 | 1151.37 | 989.41 | 938.05 | 910.93 | 990.55 | 11885.43 | | | 2 | |
| Raw Flow: Monthly Total - RW2 (m*) | 1129.78 | 848.28 | 794.46 | 741.15 | 882.75 | 972.10 | 1106.57 | 1137.98 | 962 62 | 903.82 | 857.13 | 950.55 | 11287.19 | | | | |
| Raw Flow: Monthly Avg - RW (m*/d) | 75.69 | 60.23 | 53.02 | 51.33 | 58,78 | 67,44 | 72.88 | 73.85 | 65.07 | 59.42 | 58.94 | 62.62 | | 63.27 | | | |
| Raw Flow: Monthly Avg - RW1 (m*/d) | 39.25 | 30.98 | 27 39 | 26 63 | 30.30 | 35 04 | 37.19 | 37.14 | 32.98 | 30.26 | 30.36 | 31.95 | | 32.46 | | | |
| Raw Flow: Monthly Avg - RW2 (m*/d) | 36.44 | 29.25 | 25,63 | 24,71 | 28.48 | 32,40 | 35:70 | 36,71 | 32.09 | 29.16 | 28.57 | 30.66 | | 30.82 | | | |
| Raw Flow: Monthly Max - RW (m³/d) | 181.32 | 90.25 | 86 67 | 80 69 | 148.96 | 120 32 | 100.61 | 117.74 | 109.08 | 103.26 | 79.81 | 92.40 | | | 181 32 | | 300.00 |
| Raw Flow: Monthly Max - RW1 (m1/d) | 93.01 | 45.72 | 44.60 | 42 49 | 77.61 | 61.13 | 53.14 | 58.55 | 54.93 | 53.03 | 42.20 | 48.49 | | | 93.01 | | |
| Raw Flow: Monthly Max - RW2 (m³/d) | 88.31 | 45.74 | 42.07 | 38 20 | 71.35 | 59.19 | 51.58 | 59.19 | 54.15 | 50.23 | 37.61 | 45.91 | | | 88 31 | | |
| Treated Flow: Monthly Total - TW (m*) | 2640.21 | 1990.41 | 1909.27 | 1816 22 | 2077.69 | 2272 23 | 2537.00 | 2491.05 | 2166.04 | 1993.73 | 2022.06 | 2155.67 | 26071.58 | | | | |
| Treated Flow: Monthly Avg - TW (m ⁴ /d) | 85.17 | 68.63 | 61,59 | 60:54 | 67 02 | 75.74 | 81.84 | 80.36 | 72.20 | 64.31 | 67.40 | 69.54 | | 71.20 | | | |
| Treated Flow: Monthly Max - TW (m ¹ /d) | 173.22 | 82.17 | 70.28 | 70.97 | 125.77 | 106.38 | 101.55 | 102.84 | 96.73 | 107.50 | 73.81 | 78.78 | | | 173.22 | | 264.00 |
| Turbidity: | | | | | | | | | | | | | | | | | |
| Raw: Max Turbidity - RW (NTU) | 0.62 | 0.55 | 1.17 | 0.77 | 1.12 | 0.84 | 0.79 | 0.74 | 0.56 | 0.52 | 0.76 | 0.62 | | | 1.17 | | |
| Filter Eff: Min Turbidity - Filt1 (NTU) | 0.02 | 0.03 | 0.03 | 0.02 | 0.00 | 0.02 | 0.02 | 0.03 | 0.00 | 0.02 | 0.02 | 0.02 | | | | 0.00 | |
| Filter Eff: Min Turbidity - Filt2 (NTU) | 0.02 | 0.04 | 0.03 | 0.03 | 0.00 | 0.05 | 0.04 | 0.04 | 0.04 | 0.01 | 0.04 | 0.05 | | | | 0.00 | |
| Filter Eff: Max Turbidity - Filt1 (NTU) | 1.00 | 0.52 | 0.41 | 2.00 | 2.00 | 0 19 | 2.00 | 1.84 | 0.55 | 2.00 | 0.21 | 2.00 | | | 2.00 | | 1.00 |
| Filter Eff: Max Turbidity - Filt2 (NTU) | 1.00 | 0.61 | 0.31 | 2.00 | 2.00 | 1.46 | 2.00 | 0.27. | 0.38 | 2.00 | 0.54 | 2.00 | | | 2.00 | | 1,00 |
| Chemical Parameters: | | | | | | | | | | | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | < 0.003 | | | < 0.003 | | | | | < 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 0.097 | | | 0.108 | | | 0.016 | | | 0.008 | | | 10 1 | | 0.108 | | 10 |
| Distribution: Max THM - DW (µg/l) | 28 | | | 35 | | | 74 | | | 48 | | | T 1 | | 74 | | 100 |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | |
| TW: Min Free CI2 Resid - CW (mg/L) | 0.00 | 1,17 | 0.83 | 0.33 | 0.56 | 0.07 | 0.40 | 0.54 | 0.00 | 1.46 | 0.04 | 0.19 | | | 7 1 | 0.00 | 0.60 |
| TW: Max Free CI2 Resid - CW (mg/L) | 5.00 | 2.06 | 2.75 | 2 23 | 2.01 | 1.98 | 2.11 | 1.99 | 1.91 | 2.12 | 2.22 | 3.32 | | | 5.00 | | |
| Dist: Min Free CI2 Resid - DW (mg/L) | 0.74 | 0.88 | 1.20 | 1.34 | 1.17 | 1.00 | 0.88 | 1.34 | 1.02 | 0.84 | 1.23 | 1.30 | | | | 0.74 | 0.05 |
| Dist: Max Free Cl2 Resid - DW (mg/L) | 1.69 | 1.59 | 1.77 | 1.75 | 1.40 | 1.64 | 1.70 | 1.72 | 1.36 | 1.60 | 1.43 | 1.71 | | | 1.77 | | |
| Bacti Samples Collected: | | | 0.11 | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - RW | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 26 | | | | |
| Dist Bacti: # of samples - DW | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 52 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 |

Facility Flow Summary

Drinking-Water System Number:

250001910

Drinking-Water System Name:

NORLAND DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-103 Exp Jul 25, 2021

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

Train 1 (RW1)

Source Type:

Surface Water - Gull River

Drinking Water Permit to Take Water No:

4680-7JKLFD

| | Manthly Floor Total | Deily Flavy | Daily Flow | Daily Flow |
|----------|---------------------|------------------|------------|----------------|
| Month | Monthly Flow Total | Daily Flow | Maximum | Peak Flow Rate |
| | (m3/month) | Average (m3/day) | (m3/day) | (L/sec) |
| Jan | 1216.66 | 39.25 | 93.01 | 3.10 |
| Feb | 898.30 | 30.98 | 45.72 | 2.31 |
| Mar | 849.12 | 27.39 | 44.60 | 2.24 |
| Apr | 798.89 | 26.63 | 42.49 | 2.34 |
| May | 939.34 | 30.30 | 77.61 | 2.29 |
| Jun | 1051.06 | 35.04 | 61.13 | 2.55 |
| Jul | 1152.75 | 37.19 | 53.14 | 2.26 |
| Aug | 1151.37 | 37.14 | 58.55 | 2.19 |
| Sep | 989.41 | 32.98 | 54.93 | 2.85 |
| Oct | 938.05 | 30.26 | 53.03 | 2.91 |
| Nov | 910.93 | 30.36 | 42.20 | 2.22 |
| Dec | 990.55 | 31.95 | 46.49 | 2.24 |
| Total | 11886.43 | | | |
| Avg | 990.54 | | | |
| Max | 1216.66 | | 93.01 | 3.10 |
| Criteria | | | 300.00 | 15.00 |

Facility Flow Summary

Drinking-Water System Number:

250001910

Drinking-Water System Name:

NORLAND DRINKING WATER SYSTEM

Drinking-Water System Owner: Drinking-Water System Category: Title Holder: Municipality Small Municipal Residential

Municipal Drinking Water License:

141-103 Exp 7/25/2021

Period being reported:

01/2016 12/2016

Raw Water

Raw Water (Source Name)

Train 2 (RW2)

Source Type:

Surface Water - Gull river

Drinking Water Permit to Take Water No:

4680-7JKLFD

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|
| Jan | 1129.78 | 36.44 | 88.31 | 2.72 |
| Feb | 848.28 | 29.25 | 45.74 | 2.20 |
| Mar | 794.46 | 25.63 | 42.07 | 2.15 |
| Apr | 741.15 | 24.71 | 38.20 | 2.16 |
| Мау | 882.75 | 28.48 | 71.35 | 2.19 |
| Jun | 972.10 | 32.40 | 59.19 | 2.13 |
| Jul | 1106.57 | 35.70 | 51.58 | 2.21 |
| Aug | 1137.98 | 36.71 | 59.19 | 2.15 |
| Sep | 962.62 | 32.09 | 54.15 | 2.85 |
| Oct | 903.82 | 29.16 | 50.23 | 2.85 |
| Nov | 857.13 | 28.57 | 37.61 | 2.16 |
| Dec | 950.55 | 30.66 | 45.91 | 2.21 |
| Total | 11287.19 | | | |
| Avg | 940.60 | | | |
| Max | 1137.98 | | 88.31 | 2.85 |
| Criteria | | | 300.00 | 15.00 |

Ontario Clean Water Agency Time Series Info Report

From: 01/01/2016 to 31/12/2016

Facility Org Number: 6262

Facility Works Number 250001910

Facility Name: NORLAND DRINKING WATER SYSTEM

Municipality: City of Kawartha Lakes

Facility Classification: Class 3 Water Treatment

Service Population: 200.0

Total Design Capacity: 264.0 m3/day

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | Avg | Max |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|
| RW1 / Flow Rate - I/s | | | | | | | | | | | | | | |
| Max OL | 3.10 | 2.31 | 2.24 | 2.34 | 2.29 | 2.55 | 2.26 | 2.19 | 2.85 | 2.91 | 2.22 | 2.24 | | 3,10 |
| Mean OL | 0.46 | 0.35 | 0.32 | 0.31 | 0.35 | 0.43 | 0.42 | 0.43 | 0.38 | 0.35 | 0.35 | 0.37 | 0.38 | |
| RW2 / Flow Rate - I/s | | | | | | | | | | | | | | |
| Max OL | 2.72 | 2.20 | 2.15 | 2.16 | 2.19 | 2.13 | 2.21 | 2.15 | 2.85 | 2.85 | 2.16 | 2.21 | | 2.85 |
| Mean OL | 0.42 | 0.33 | 0.30 | 0.28 | 0.33 | 0.38 | 0.41 | 0.42 | 0.37 | 0.34 | 0.35 | 0.36 | 0.36 | |



February 17, 2017

Ms. Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON
K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Omemee DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Omemee DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

This report is a summary of water quality information for the Omemee DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Omemee DWS is categorized as a Small Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board: or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|---|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Low treated free chlorine | December 8, 2016 | Restore chlorine and flush system. Collect bacteriological samples. | Complete |
| Permit to Take Water | No failures to report | | | |
| #8227-7JBKVU | | | | |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Municipal Drinking Water Licence | No failures to report | | | |
| 141-101 | | | | |
| Drinking water Works Permit 141-201 | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Please find attached a copy of the Annual Record of Water Taking and the Performance Assessment Reports for the Omemee DWS which contains all required flow information.

Note: Well 1 was not in production in 2016.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Ontario Clean Water Agency Performance Assessment Report Water

From: 01/01/2016 to 31/12/2016

Facility: [5045] OMEMEE DRINKING WATER SYSTEM
Works: [5045] OMEMEE DRINKING WATER SYSTEM

| | 01/2016 | 02/2015 | 03/2016 | 04/201E | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | e-Total-9 | e-A12-5 | <-Max> | Salk Contract | 4-Criteria-> |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|---------|---------|---------------|--------------|
| Flows: | | | | | | | | | | | - | | | | | | |
| Flow Flow: Monthly Total - WELL! (m²) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Raw Flow: Monthly Total - WELL2 (m*) | 1026.46 | 967,21 | 1054.15 | 1043.67 | 1404.43 | 1632.30 | 1001.23 | 1004.27 | 1454.33 | 1009,19 | 1923.75 | 1103.28 | 19004.53 | | | | |
| Raw Flow: Monthly Avg - WELL1 (mYd) | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | D | | | |
| Raw Flow: Monthly Avg + WELL2 (m1d) | 33.11 | 33.35 | 34,33 | 34.6 | 63 | 54,41 | 51,65 | 51,75 | 47.81 | 35.46 | 34,13 | 35,59 | | 40,97 | | | |
| Raw Flow: Monthly Max - WELL1 (m1d) | 0 | 0 | 0 | . 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | | 198,72 |
| Raw Flow: Monthly Max - WELL2 (m*rd) | 46,77 | 44.97 | 48.45 | 51.25 | 84.6 | 79,38 | 73.86 | 66.43 | 62.32 | 45.56 | 49.99 | 53.33 | | | 54.6 | 10 1 | 262.06 |
| Treated Flow: Monthly Total - TW (m²) | 1106.61 | 1044.2 | 1151.99 | 1129.70 | 1470.18 | 1759.89 | 1737.26 | 1730.6 | 1536.97 | 1184.95 | 1102.05 | 1162.51 | 16118.01 | | | | |
| Treated Flow: Monthly Avg - TW (m'ld) | 35.7 | 36.01 | 37,16 | 37.66 | 47.43 | 58.66 | 56.04 | 55,83 | 51,3 | 38.22 | 36.74 | 37.5 | | 44,02 | | | |
| Treated Flow: Monthly Max - TW (In Fd) | 52.65 | 46.31 | 52,49 | 55,47 | 79,43 | 93.48 | 80,07 | 71,6 | 66.B1 | 49,4 | 53.88 | 50,68 | | | 93.48 | | 461 |
| Turbidity: | | | | | | | 0 | | | | | | | 5 | | | |
| Raw: Max Turbidity - WELL2 (NTU) | 0.15 | 0.10 | 0,2 | 0.7 | 0.14 | 0.13 | 0.10 | 0.47 | 1,87 | 1,23 | 0.27 | 0,12 | | | 1.67 | | |
| Treated: Min Turbidity - TW (NTU) | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.06 | 0.07 | 0.07 | 0.08 | | | | 0.04 | |
| Treated: Max Turbidity - TW (NTU) | 0.59 | 2 | 2 | 1 | 1.51 | 2 | 0.06 | 2 | 2 | 0.15 | 2 | 0.92 | | | 2 | | |
| Chemical Parameters: | | | | | | | 64 0 | | | | | | S | | | | |
| Treated: Max Mitrite - TW (mg/L) | < 0.003 | | | 0.003 | | | < 0.000 | | | < 0.003 | | | | | € 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 0.006 | | | 0.006 | | | < 0.00€ | | | 4 0.00E | | | | | 0.006 | | 10 |
| Distribution: Max THM - DW (pg/l) | 8.4 | | | | | | 16 | | | 7.4 | | | | | 16 | | 100 |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 0.95 | 1,1 | 1,03 | 0 | 0.87 | 1.16 | 1,15 | 0.9 | 0 | 1,4 | 1.17 | 0.08 | | | | 0 | |
| Treated: Max Free GI2 Resid - TW (mg/L) | 1.56 | 1.29 | 1,25 | 1,65 | 1,39 | 1.49 | 1,71 | 2.01 | 2,62 | 1.78 | 2.07 | 2.19 | | | 2,62 | | 31 7 8 |
| Dist: Min Free CI2 Resid - DW (mg/L) | 0.11 | 18.0 | 0.92 | 0.7 | 0.68 | 0.63 | 0.61 | 0,77 | 0,81 | 0,75 | 1,1 | 0.59 | | | | 0.11 | 0.05 |
| Dist: Max Free CI2 Resid - DW (mg/L) | 1,03 | 1,58 | 1.17 | 1,28 | 1.55 | 1.2 | 1.13 | 1,16 | 1.55 | 1.48 | 1.90 | 1.87 | 12 | 3 | 1.00 | 1 | |
| Bacti Samples Collected: | | | | | | 1 | | | | | | | | | | | |
| Raw Bacti: # of samplex - WELL? | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 2 | 2 | 31 | | | 9-11-22 | |
| Treated Bacti: # of samples - TW | - 1 | 1 | | | | | | | | | t | t | 4 | | | | |
| Dist Bacti: # of samples - DW | 4 | - 5 | - 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 1 1 | 56 | | | Service (| |
| Treated Bactir # of TC exceedances - TW | 0 | 0 | | | | | | | | | 0 | 0 | 0 | | | | |
| Treated Bacti: # of 60 exceedances - TW | 0 | . 0 | | | | | 4 | | | | 0 | 0 | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | - 1 | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | | - 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Well 1 Flow Summary

Drinking-Water System Number:

210002227

Drinking-Water System Name:

OMEMEE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-108

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

WELL1

Source Type:

Drilled

Drinking Water Permit to Take Water No:

8227-7JBKVU

| Month | Adamatata Flana Tatat | Daily Flow | Daily Flow | Daily Flow | Daily Flow | |
|----------|-----------------------|------------|-------------------|--------------|----------------|--|
| | Monthly Flow Total | Average | Maximum | Average Flow | Peak Flow Rate | |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) | |
| Jan | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Feb | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Mar | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | |
| Apr | 0.00 | 0.00 | 0.00 | 0.00 | 2.86 | |
| May | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | |
| Jun | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | |
| Jul | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Aug | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Sep | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Oct | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Nov | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Dec | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Total | 0.00 | | 5 50 6 | - | | |
| Avg | 0.00 | 0.00 | 7 mil | 0.00 | 427 | |
| Max | 0.00 | | 0.00 | 150 | 2.86 | |
| Criteria | 1241 | 112. | 198.72 | 100 | 2.30 | |

Well 2 Flow Summary

Drinking-Water System Number: 210002227

Drinking-Water System Name: OMEMEE DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Small Municipal Residential

Municipal Drinking Water License: 141-108

Period being reported: 01/2016 - 12/2016

Raw Water (Source Name) WELL2
Source Type: Drilled

Drinking Water Permit to Take Water No: 8227-7JBKVU

| Month | Monthly Flow Total | Daily Flow | Daily Flow | Daily Flow | Daily Flow | |
|----------|--------------------|---------------------|------------|--------------|----------------|--|
| | | Average | Maximum | Average Flow | Peak Flow Rate | |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) | |
| Jan | 1026.46 | 33.11 | 48.77 | 0.39 | 2.50 | |
| Feb | 967.21 | 33.35 | 44.67 | 0.39 | 2.59 | |
| Mar | 1064.15 | 34.33 | 48.48 | 0.40 | 2.92 | |
| Apr | 1043.87 | 34.80 | 51.25 | 0.41 | 3.07 | |
| May | 1404.43 | 45.30 | 84.60 | 0.53 | 2.34 | |
| Jun | 1632.36 | 54.41 | 79.38 | 0.63 | 2.43 | |
| Jul | 1601.23 | 51.65 | 73.96 | 0.61 | 2.51 | |
| Aug | 1604.27 | 51.75 | 66.43 | 0.60 | 2.91 | |
| Sep | 1434.33 | 47.81 | 62.32 | 0.56 | 2.64 | |
| Oct | 1099.19 | 35.46 | 45.56 | 0.42 | 3.41 | |
| Nov | 1023.75 | 34.13 | 49.99 | 0.40 | 3.23 | |
| Dec | 1103.28 | 35.59 | 53.33 | 0.41 | 2.56 | |
| Total | 15004.53 | 5222 | 22 | | 544); | |
| Avg | 1250.38 | 40.97 | | 0.48 | 1980 | |
| Max | 1632.36 | :==:: | 84.60 | 440 | 3.41 | |
| Criteria | - | (2.1 6) | 262.08 | | 3.03 | |

Treated Water Flow Summary

Drinking-Water System Number:

210002227

Drinking-Water System Name:

OMEMEE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-108

Period being reported:

01/2016 - 12/2016

Treated Water (Source Name)

TW

| | | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|-------------------------------|------------|------------|--------------------|----------------|
| Month | Monthly Flow Total | Average | Maximum | Average Flow | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 1106.61 | 35.70 | 52.85 | 0.41 | 2.59 |
| Feb | 1044.20 | 36.01 | 48.31 | 0.42 | 2.51 |
| Mar | 1151.99 | 37.16 | 52.49 | 0.43 | 2.57 |
| Apr | 1129.79 | 37.66 | 55.47 | 0.44 | 5.64 |
| May | 1123.79 1470.18 1759.89 | | 79.43 | 0.57 | 6.35 |
| Jun | 1759.89 | 58.66 | 93.48 | 0.68 | 3.44 |
| Jul | 1737.26 | 56.04 | 80.07 | 0.65 | 2.96 |
| Aug | 1730.60 | 55.83 | 71.60 | 0.65 | 2.93 |
| Sep | 1538.97 | 51.30 | 66.81 | 0.60 | 3.20 |
| Oct | 1184.96 | 38.22 | 49.40 | 0.44 | 2.50 |
| Nov | 1102.05 | 36.74 | 53.88 | 0.43 | 6.29 |
| Dec | 1162.51 | 37.50 | 50.68 | 0.44 | 5.31 |
| Total | 16119.01 | 22 | | (144) | |
| Avg | 1343.25 | 44.02 | | 0.51 | 55 |
| Max | 1759.89 | | 93.48 | () 22 5 | 6.35 |
| Criteria | | | 461.00 | | 5.34 |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Pinewood DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Pinewood DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Pinewood DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Pinewood DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Low pressure during maintenance flushing. | 2016/11/09 | Opened valve, flushed sytem and collected samples. | Complete |
| Drinking Water Works Permit 141-210 | No failures to report | | | |
| Municipal Drinking Water Licence 141-110 | No failures to report | | | |
| Permit to Take Water 4075- 7BLWK | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

The 2016 Compliance Inspection occurred on May 27, 2016. No failures were identified.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Pinewood DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Ontario Clean Water Agency
Performance Assessment Report Water

From: 01/01/2016 to 31/12/2016

From: 01/01/

Report extracted 02/02/2017 09:20

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 05/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total-> | K-Avg> | €-Max> | e-Attn-o | e-Crtera-s |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|--------|--------------|-------------|------------|
| Flows: | | | | | | | | | | | | | | | | | |
| Raw Flow: Montrely Total - RW4 (m*) | 4014,19 | 3976,68 | 4551 | 4253.68 | 4836.23 | 4963 | 3585 | 4307.98 | 3883.66 | 3418 | 3964.54 | 4179.88 | 49734.14 | | | | |
| Raw Flow: Monthly Total - RW2 (m²) | 0.45 | 1.12 | 1,16 | 1.53 | 0.57 | 0.29 | 0 | 0.16 | 0.23 | 0.21 | 0 | 0 | 5.72 | | | | |
| Raw Flow: Monthly Total - RW3 (m²) | 0.24 | 0.51 | 0.58 | 0,93 | 0.3 | 0.35 | 0 | 0.37 | 0.18 | 6.26 | 0 | 0 | 3.72 | | | | |
| Raw Flow: Monthly Avg - RW4 (m*ld) | 129,49 | 137.13 | 140.81 | 145,12 | 146.33 | 165,43 | 115.65 | 138.97 | 129.46 | 110,26 | 132,16 | 134.63 | | 135,97 | | | |
| Raw Flow: Monthly Avg - RW2 (mYd) | 0.01 | 0,04 | 0.04 | 0.05 | 0.02 | 10.0 | 0 | 0.01 | 0.01 | 0.01 | 0 | 0 | | 0.02 | | | |
| Raw Flow: Monthly Avg - RW3 (m*/d) | 0.01 | 0.02 | 0.02 | 0.03 | 0.01 | 0.01 | 0 | 10,0 | 0,01 | 0.01 | 0 | 0 | | 0.01 | | | |
| Raw Flow: Monthly Max - RW4 (m1ld) | 154.46 | 171.86 | 178.19 | 178 | 257,06 | 245 | 155 | 238.76 | 186.96 | 152 | 160 | 167,74 | | | 257 08 | | |
| Rew Plow: Monthly Max - RW2 (m*ld) | 0.26 | 0.28 | 0.35 | 0.54 | 0,18 | 0.15 | 0 | 0.16 | 0,14 | 0.13 | 0 | 0 | | | 0.54 | | |
| Raw Flow: Monthly Max - RW3 (m*ld) | 0.17 | 0.16 | 0.28 | 0.28 | 0,13 | 0.2 | 0 | 0.12 | 0.12 | 0,1 | 0 | 0 | | | 0.28 | | |
| Trauted Firm: Monthly Total - TW (m²) | 4048.51 | 3993,63 | 4612,82 | 4627.32 | 4505,13 | 4928.29 | 4713.58 | 4317.54 | 3948.12 | 4266,76 | 4000,52 | 4210,51 | 51972.76 | | | | |
| Treated Flow: Monthly Avg - TW (m*ni) | 130.6 | 137.71 | 145.8 | 154,24 | 145,33 | 164.26 | 152,05 | 138.25 | 131.6 | 131,19 | 133.35 | 135.82 | | 142,02 | A CONTRACTOR | | |
| Treated Flow; Monthly Max - TW (m1/d) | 149,41 | 165,21 | 171.01 | 187.84 | 274.3 | 250.72 | 189.33 | 221,46 | 182,59 | 149,44 | 100.11 | 105.27 | | 1 | 274.3 | | |
| Raw Flow: Monthly Total - RW total raw (m*) | 4014.88 | 3978.33 | 4553.16 | 4613.76 | 4582.56 | 4995.73 | 4737.01 | 4290.98 | 3853.66 | 4081.62 | 3074.46 | 4179.50 | 51896.03 | | | | |
| Raw Flow: Munthly Avg - RW total raw (m*ful) | 129.51 | 137.18 | 148.88 | 153.70 | 148.15 | 166.52 | 152.81 | 138.42 | 129,46 | 133.67 | 132,48 | 134.53 | | 141,81 | | | |
| Raw Flow: Monthly Max - RW total raw (m/ld) | 154.46 | -171.86 | 178.10 | 101.66 | 257.08 | 243.22 | 108.3 | 221.46 | 186.96 | 162.4 | 165.93 | 157.74 | | | 257 OB | | |
| Turbidity: | | | 77 100 | | | | | | | | | | | | | | |
| Raw: Max Turbidley - RW4 (NTU) | 0.33 | 0.16 | 0.31 | 0.42 | 0.56 | 0.28 | 0.33 | 0.37 | 0.24 | 0.31 | 0,18 | 9.39 | | | 0.56 | | |
| Raw: Max Turbidity - RW2 (NTU) | 0.83 | 1.15 | 0.89 | 0.22 | 0.69 | 0.59 | 0.61 | 0.69 | 0.69 | 0.67 | 1,64 | 0.69 | | | 1,64 | | |
| Rew; Max Turbickly - RW3 (NTU) | 0.47 | 0.6 | 0.63 | 0.67 | 0.63 | 0.64 | 0.#2 | 0.67 | 0.58 | 0.48 | 0.35 | 0.48 | | | 0.8 | | |
| Treated: Min Turbidity - TW (NTU) | 0.3 | 0,33 | 0.32 | 0 | 0.38 | 0.38 | 0.43 | 0.048 | 0.55 | 0 | 0.16 | 9.17 | | 100 | | 0 | |
| Treated: Max Turbidity - TW (NTU) | 2 | 2 | 2 | 2 | -2 | 2 | 2 | 2 | 2 | - 2 | 1.15 | 0.7 | | | 2 | | |
| Chemical Parameters: | | W | | | | 5 | | | | 20 | | | | 2 | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | < 0.003 | | | < 0.003 | | | | | < 0.003 | | |
| Treated: Max Nitrate - TW (mpt.) | 0.009 | | | 0,011 | | | 0,01 | | | 0.009 | | | | | 0,011 | | |
| Distribution: Max THM - DW (upt) | 0.9 | | | 9.6 | | | 21 | | | 7.5 | | | | | 21 | | |
| Chlorine Residuals: | | | | 4 0 | | | V - I | | | W | | | | | | | |
| Treated: Min Free C12 Resid + TW (mg/L) | .0 | 1,42 | 1.55 | 0 | 1,15 | 1.15 | 0.00 | 0.041 | .0 | 1,61 | 0 | 1.25 | | | | 9 | |
| Treated: Max Free Ct2 Resid - TW (reg/L) | 1.6 | 1.65 | 4.64 | 151 | 2,02 | 1.94 | 1,51 | 5 | 1.06 | 2.24 | 2.59 | 4.05 | | | 5 | | |
| Dist: Min Free CI2 Resid - DW (mg/L) | 1,16 | 1.22 | 1.3 | 1.31 | 1.1 | 1.1 | 0.72 | 124 | 0.95 | 1.63 | 1.24 | 1.27 | | | | 0.72 | |
| Dist: Max Free Ct2 Resid - DW (mgt_) | 1,43 | 1.67 | 1.56 | 1,86 | 1.73 | 1,77 | 1.76 | 1.86 | 1.66 | 2.01 | 2.42 | 1.95 | | | 2./2 | | |
| Bacti Samples Collected: | | | 1 | | | | | | 1100 | 5 | | | | | | | |
| Raw Bacti: # of samples - RW4 | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 9 | 4: | 4 | 52 | | | | |
| Raw Bacti: # of samples - RW2 | 1 4 | 5 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 5 | 4 | 4 | 52 | | | | |
| Raw Bacti: # of samples - RW3 | | 5 | 4 | 4 | 5 | 5 | 1 | - 5 | - 4 | 5 | 4 | 4 | 52 | | | | |
| Treated Bocti: # of samples - TW | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 5 | 4 | 4 | 52 | | | 10 | |
| Dist Bacti: # of samples - DW | 12 | 15 | 12 | 12 | 15 | 15 | 12 | 15 | 12 | 15 | 15 | 12 | 159 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | ider Serve | |
| Treated Bact: # of EC exceedances - TW | 0 | 0 | 0 | 0 | 0. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .0 | | | DITTE STATE | |
| Dist Bacti: # of TC exceedances - DW | 1 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of EC exceedances - DW | | 0 | - | 0 | 0 | 0 | 8 | 0 | | 0 | 0 | 1 0 | 0 | | | 49 | 190 |

Drinking-Water System Number:

220006464

Drinking-Water System Name:

PINEWOOD DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-110

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

4075-7JBLWK

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum | Daily Flow Peak Flow Rate | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------|------------------------------|-----------------------------------|
| Jan | 0.45 | 0.01 | (m3/day) 0.28 | (L/sec) 1.09 | 31 |
| Feb | 1.12 | | 0.28 | 1.05 | 29 |
| Mar | 1.16 | | 0.35 | 1.09 | 31 |
| Apr | 1.53 | | 0.54 | 4.75 | 30 |
| May | 0.57 | | 0.19 | 1.08 | 31 |
| Jun | 0.29 | 0.01 | 0.15 | 1.09 | 30 |
| Jul | 0.00 | 0.00 | 0.00 | 0.00 | 31 |
| Aug | 0.16 | 0.01 | 0.16 | 1.07 | 31 |
| Sep | 0.23 | 0.01 | 0.14 | 1.07 | 30 |
| Oct | 0.21 | 0.01 | 0.13 | 1.08 | 31 |
| Nov | 0.00 | 0.00 | 0.00 | 1.10 | 30 |
| Dec | 0.00 | 0.00 | 0.00 | 1.05 | 31 |
| Total | 5.72 | 0.19 | 2.22 | 15.52 | 366 |
| Avg | 0.48 | 0.02 | 0.19 | 1.29 | 31 |
| Max | 1.53 | 0.05 | 0.54 | 4.75 | 31 |
| Criteria | | | 261.50 | 3.03 | |

Drinking-Water System Number: 220006464

Drinking-Water System Name: PINEWOOD DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-110

Period being reported: 01/2016 12/2016

Raw Water

Raw Water (Source Name) RW3
Source Type: Drilled

Drinking Water Permit to Take Water No: 4075-7JBLWK

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|-------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 0.24 | 0.01 | 0.17 | 0.54 | 31 |
| Feb | 0.51 | 0.02 | 0.18 | 0.52 | 29 |
| Mar | 0.58 | 0.02 | 0.28 | 0.53 | 31 |
| Apr | 0.93 | 0.03 | 0.28 | 4.75 | 30 |
| May | 0.30 | 0.01 | 0.13 | 0.50 | 31 |
| Jun | 0.35 | 0.01 | 0.20 | 0.53 | 30 |
| Jul | 0.00 | 0.00 | 0.00 | 0.33 | 31 |
| Aug | 0.37 | 0.01 | 0.12 | 0.53 | 31 |
| Sep | 0.18 | 0.01 | 0.12 | 0.51 | 30 |
| Oct | 0.26 | 0.01 | 0.10 | 0.51 | 31 |
| Nov | 0.00 | 0.00 | 0.00 | 0.52 | 30 |
| Dec | 0.00 | 0.00 | 0.00 | 0.33 | 31 |
| Total | 3.72 | 0.12 | 1.58 | 10.10 | 366 |
| Avg | 0.31 | 0.01 | 0.13 | 0.84 | 31 |
| Max | 0.93 | 0.03 | 0.28 | 4.75 | 31 |
| Criteria | | | 163.40 | 1.89 | |

Drinking-Water System Number:

220006464

Drinking-Water System Name:

PINEWOOD DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-110

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW4

Source Type:

Drilled

Drinking Water Permit to Take Water No:

4075-7JBLWK

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking | Maximum Daily Run Time (hr) |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|--------------------------------|
| Jan | 4014.19 | 129.49 | 154.46 | 5.44 | 31 | 8.53 |
| Feb | 3976.68 | 137.13 | 171.86 | 5.37 | 29 | |
| Mar | 4551.00 | 146.81 | 178.19 | 5.54 | 31 | |
| Apr | 4353.68 | 145.12 | 178.00 | 10.00 | 30 | |
| May | 4536.23 | 146.33 | 257.08 | 5.42 | 31 | 13.90 |
| Jun | 4963.00 | 165.43 | 245.00 | 5.41 | 30 | 17.30 |
| Jul | 3585.00 | 115.65 | 155.00 | 5.38 | 31 | |
| Aug | 4307.98 | 138.97 | 238.76 | 5.36 | 31 | |
| Sep | 3883.66 | 129.46 | 186.96 | 5.51 | 30 | |
| Oct | 3418.00 | 110.26 | 152.00 | 5.36 | 31 | |
| Nov | 3964.84 | 132.16 | 160.00 | 5.36 | 30 | |
| Dec | 4179.88 | 134.83 | 167.74 | 5.35 | 31 | |
| Total | 49734.14 | 1631.63 | 2245.05 | 69.50 | 366 | 39.73 |
| Avg | 4144.51 | 135.97 | 187.09 | 5.79 | 31 | 13.24 |
| Max | 4963.00 | 165.43 | 257.08 | 10.00 | 31 | 17.30 |
| Criteria | | | 587.50 | 6.80 | | |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Pleasant Point DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Pleasant Point DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Pleasant Point DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Pleasant Point DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act*, 2001, the members of the municipal service board: or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | No failures to report | | | |
| Drinking Water Works Permit 141- 213 | No failures to report | | | |
| Municipal Drinking Water Licence 141- 113 | No failures to report | | | |
| Permit to Take Water 6625- 7JDPJZ and 5087- 9ZQJJU | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

The 2016/17 Compliance Inspection occurred on January 24, 2017. The inspection report was not finalized as of this report writing

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Pleasant Point DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31. End

Ontario Clean Water Agency Performance Assessment Report Water

From: 01/01/2016 to 31/12/2016

Report extracted 02/15/2017 11:31

Facility: [6564] PLEASANT POINT DRINKING WATER SYSTEM
Works: [6664] PLEASANT POINT ORDKING WATER SYSTEM

| | 01/2018 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | e-Total-+ | e-Avgo | <-Max> | c-Min-> | <-Criteria> |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|-----------|--------|--------|-----------------|---------------------------|
| Flows: | | | | | | | | | | | | | | | | | |
| Raw Flow: Monthly Total - RW1 (m*) | 897.7 | 47.33 | 0 | 1 1 | . 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 949.03 | | | | |
| Raw Flow: Monthly Total - RWZ (m*) | 0 | | | | | | | 7321 | 0 | | | | 0 | | | | |
| Raw Flow: Monthly Total - RW2R (m²) | 392,17 | 1122.2 | 1208.82 | 1276.25 | 1643 | 1997 | 1890 | 1751 | 1312 | 1267 | 1231 | 13 12 86 | 16403.4 | | | | |
| Raw Flow: Monthly Avg - RW1 (m*ld) | 28.96 | 1.63 | .0 | 0.03 | 0 | 0.03 | 0 | 0 | .0 | 0 | 0 | 0.06 | | 2.50 | | | |
| Raw Flow; Monthly Avg - RW2 (m*/d) | 0 | | | | | | | | 0 | | | | | | | | |
| Raw Flow: Monthly Avg - RW2R (m1/d) | 12.65 | 38.7 | 38,99 | 42,54 | 53 | 68.57 | 00,97 | 56.48 | 43.73 | 42.23 | 41,03 | 42.35 | | 44.94 | | | |
| Raw Flow: Monthly Max - RW1 (m1/d) | 51,15 | 18.4 | 0 | | 0 | 1 | 0 | 0 | . 0 | | 0 | 1 | | | 51.15 | | |
| Raw Flow: Monthly Max - RW2 (m*id) | 0 | | | | | | | | 0 | | | | | | 0 | | |
| Raw Flow: Monthly Max - RW2R (m/ld) | 24,72 | \$2.58 | 50.49 | 57 | 93 | 133 | 105 | 75 | 63 | 57 | 56 | 74 | | | 133 | | |
| Treated Flow: Monthly Total - TW (in') | 1296.90 | 1161.71 | 1205 | 1291,79 | 1763.87 | 1927,14 | 1982.56 | 1720.67 | 1319.38 | 1314,64 | 1198.12 | 1313.55 | 17463.52 | -00 | 3 -51 | | 6 1 17 |
| Treated Flow: Monthly Avg - TW (m'ld) | 40.67 | 40.05 | 35.67 | 43.06 | 56.0 | 84.24 | 63,95 | 55.51 | 43.08 | 42.41 | 39.87 | 42.37 | | 47.67 | | | |
| Treated Flow: Monthly Max - TW (m*/d) | 50.9 | 60 | 43.43 | 50.0 | 92.6 | 81.87 | 117.3 | 87.4 | 69.9 | 52.85 | 52.15 | 70.3 | | | 117.3 | | |
| Raw Flow: Monthly Total - RW total raw (m*) | 1290.83 | 1148.05 | 1210.82 | 1277,28 | 1740.04 | 1866 | 1890 | 1751 | 1312 | 1267 | 1231.58 | 1312.86 | 17429 46 | | | | |
| Raw Flow: Monthly Avg - RW total raw (m/kl) | 41,64 | 39.59 | 39.05 | 42.58 | 50.13 | 66.6 | 50.97 | 58.48 | 42.72 | 40.87 | 41.05 | 42,35 | | 47,55 | | | |
| Raw Flow: Monthly Max - RW total raw (m1/d) | 51.71 | \$2.58 | 50.49 | 57 | 97.04 | 134 | 105 | 75 | 63 | .57 | 56 | 74 | | | 134: | | |
| Turbidity: | | | | | | | | | | | | | | | | | |
| Raw: Max Turbidity - RW1 (NTU) | 0.2 | 0.86 | 62.9 | 56.5 | 1.28 | .31 | 45.7 | 640 | 214 | 1.04 | 46.5 | 50.3 | | | 540 | | |
| Raw: Max Turbiday - RWZR (NTU) | 1.35 | 0.18 | 0.69 | 0.81 | 1 1 | 0.08 | 0.29 | 0.21 | 1.8 | 0.78 | 0.44 | 9.2 | | 1 | 1.0 | 9 | |
| Treated: Min Turbidity - TW (NTU) | 0.017 | 0.016 | 0 | 0.018 | 0.016 | 0,011 | 0,018 | 0.02 | 0.019 | 0.02 | 0.011 | 0.021 | | | | 0 | 6 ii |
| Treated: Max Turbidity - TW (NTU) | 0.04 | 0.079 | 0.054 | 0,499 | 0.028 | 0.035 | 0,146 | 0.043 | 0.047 | 0.063 | 0.065 | 0.03 | | | 0.489 | | |
| Chemical Parameters: | | | | | | | | | | | | 1 | | | | | |
| Treated: Max Nitrite - TW (mgl.) | < 0.003 | | | 0.004 | | | < 0.003 | | | < 0.003 | | | | | 0.004 | | NU TE |
| Trested: Max Nitrate - TW (mg/L) | 1,67 | | | 2.52 | | | -2.4 | | | 2.46 | | | | 17 | 2.52 | | 7 7 |
| Distribution: Max THM - DW (pg/l) | 5.7 | | | 6.2 | | | 6,0 | | | 5.9 | | | | | 8,3 | | |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | ADD TO THE REAL PROPERTY. |
| Treatest: Min Free Ct2 Resid - TW (mg/L) | 88.0 | 0.482 | 0.942 | 0.501 | 0.863 | 1.111 | 1.261 | 12 | 1.01 | 1,402 | 1,451 | 1.55 | | | | 0.482 | |
| Treated: Max Free Ct2 Resid - TW (mg/L) | 1,519 | 4.983 | 1,633 | 1,602 | 2.083 | 4,451 | 2,863 | 4.953 | 4,02 | 2,262 | 2.371 | 2,293 | | | 4.983 | | |
| Dist: Min Free Ct2 Resid - DW (mg/L) | 1,10 | 0.01 | 0.0 | 1.01 | 0.87 | 0.7 | 0.78 | 0,63 | 1.06 | 1.22 | 1,36 | 5.41 | | | | 0.63 | |
| Dist: Max Free CQ Resid - OW (mg/L) | 1,43 | 1.03 | 1.23 | 1.22 | 1,23 | 1.58 | 1,64 | 1.35 | 1.55 | 1,91 | 2.03 | 1.9 | | | 2.03 | | |
| Bacti Samples Collected: | | | | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - RW1 | 4 | 0 | 4 | 4 | 5 | 4 | 4 | | 4 | 5 | 4 | 4 | 53 | | | | |
| Raw Bacti: # of samples - RW2R | 4 | 5 | 4 | 4 | 5 | 4 | 4. | 5 | - 4 | 5 | 4 | 4 | 52 | | | | |
| Treated Bacti: # of samples - TW | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | | 52 | | | | |
| Dist Bacti: # of samples - DW | 12 | 15 | 12 | 12 | 15 | 12 | 12 | 15 | 12 | 15 | 12 | 12 | 156 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 50 | 2 |
| Treated Bacti: # of EC expeedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 50 - 5 - 55 - 1 | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | | 0 | | 1 | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | C TITLE OF | |

Drinking-Water System Number:

220006525

Drinking-Water System Name:

PLEASANT POINT DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-113 Exp 8/22/2016

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW1

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6625-7JDPJZ

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 897.70 | 28.96 | 51.15 | 2.45 | 31 |
| Feb | 47.33 | 1.63 | 18.40 | 2.37 | 29 |
| Mar | 0.00 | 0.00 | 0.00 | 0.02 | 31 |
| Apr | 1.00 | 0.03 | 1.00 | 10.00 | 30 |
| May | 0.00 | 0.00 | 0.00 | 0.00 | 31 |
| Jun | 1.00 | 0.03 | 1.00 | 0.00 | 30 |
| Jul | 0.00 | 0.00 | 0.00 | 0.00 | 31 |
| Aug | 0.00 | 0.00 | 0.00 | 0.00 | 31 |
| Sep | 0.00 | 0.00 | 0.00 | 0.01 | 30 |
| Oct | 0.00 | 0.00 | 0.00 | 0.05 | 30 |
| Nov | 0.00 | 0.00 | 0.00 | 0.00 | 30 |
| Dec | 2.00 | 0.06 | 1.00 | 0.00 | 31 |
| Total | 949.03 | 30.72 | 72.55 | 14.89 | 365 |
| Avg | 79.09 | 2.56 | 6.05 | 1.24 | 30 |
| Max | 897.70 | 28.96 | 51.15 | 10.00 | 31 |
| Criteria | | | 454.60 | 5.67 | |

Drinking-Water System Number:

220006525

Drinking-Water System Name:

PLEASANT POINT DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-113

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW2R

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6625-7JDPJZ

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|-------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 392.17 | 12.65 | 24.72 | 2.66 | 31 |
| Feb | 1122.30 | 38.70 | 52.58 | 2.75 | 29 |
| Mar | 1208.82 | 38.99 | 50.49 | 2.61 | 31 |
| Apr | 1276.25 | 42.54 | 57.00 | 10.00 | 30 |
| May | 1643.00 | 53.00 | 93.00 | 2.78 | 31 |
| Jun | 1997.00 | 66.57 | 133.00 | 2.64 | 30 |
| Jul | 1890.00 | 60.97 | 105.00 | 2.75 | 31 |
| Aug | 1751.00 | 56.48 | 75.00 | 2.64 | 31 |
| Sep | 1312.00 | 43.73 | 63.00 | 2.62 | 30 |
| Oct | 1267.00 | 42.23 | 57.00 | 2.61 | 30 |
| Nov | 1231.00 | 41.03 | 56.00 | 2.61 | 30 |
| Dec | 1312.86 | 42.35 | 74.00 | 2.61 | 31 |
| Total | 16403.40 | 539.25 | 840.79 | 39.27 | 365 |
| Avg | 1366.95 | 44.94 | 70.07 | 3.27 | 30 |
| Max | 1997.00 | 66.57 | 133.00 | 10.00 | 31 |
| Criteria | | | 454.60 | 5.67 | |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Sonya DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Sonya DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Sonya DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Woodfield DWS is categorized as a Small Municipal Residential Drinking Water System.

The City of Kawartha Lakes operated this DWS for the months of January and February. The Ontario Clean Water Agency operated the DWS for the period of March to December. This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|---|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | 33 TC Distribution sample. | 2016/08/24 | Flushed distribution, increased chlorine residual and resampled. | Complete |
| Drinking Water Works Permit 141-207 | No failures to report | | | |
| Municipal Drinking Water Licence 141-107 | No failures to report | | | |
| Permit to Take Water 6272- 7JDP43 | Maximum flow rate of 78L/min for TW2/95 (Well 1) | Maximum of 90L/min from 0855-0914 February 12, 2016 | Manually throttle flow using valves. | Complete |
| Provincial Officer's Order No. | No failures to report | | | |

The 2016 Compliance Inspection occurred on May 26, 2016. No failures were identified.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Woodfield DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Ontario Clean Water Agency Performance Assessment Report Water

rom: 01/01/2016 to 31/12/2016

Report extracted 02/02/2017 11:43

Facility: [1279] SONYA DRINKING WATER SYSTEM
Works: [1279] SONYA DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 94/2916 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total-> | CHAIR -> | C-Vir> | <-Min> | <criteria< th=""></criteria<> |
|---|---------|---------|---------|---------|---------|---------|------------|---------|---------|---------|------------|---------|-----------|----------|--------|--------|-------------------------------|
| Flows: | | | | | | | | | | | | | | | | | |
| Raw Flow: Monthly Total - Well 1 (m*) | 925,11 | 838,45 | 890,29 | 909.17 | 1296.4 | 1374.5 | 1303,73 | 1103.71 | 835.02 | 868.18 | 853.7 | 958.29 | 12269.60 | | | | |
| Raw Flow: Monthly Total - Well 3 (m*) | 2.03 | 2.61 | 2.8 | 2.22 | 1.94 | 3.35 | 1.77 | 3.34 | 3.67 | 3.73 | 2.35 | 2.04 | 31.55 | | | | |
| Raw Flow: Monthly Avg - Well 1 (m/ld) | 29.94 | 28.91 | 28.72 | 30.31 | 40.85 | 45.82 | 42.06 | 38.51 | 27.63 | 28,65 | 28.46 | 31,88 | | 33.49 | | | |
| Raw Flow: Monthly Avg - Well 3 (m*/d) | 0.07 | 0.09 | 0.09 | 0.07 | 0.06 | 0.11 | 0.00 | 0,11 | 0.12 | 0,12 | 0,00 | 0.07 | | 0.03 | | | |
| Raw Flow: Monthly Max - Well 1 (m/ld) | 50.56 | 44.55 | 44.43 | 48.83 | 84.15 | 83.36 | 78.54 | 73.06 | 41,33 | 53.02 | 47.6 | 74,11 | | | 84.15 | | |
| Raw Flow: Monthly Max - Well 2 (m ³ /d) | 1,05 | 1.15 | 1.4 | 0.81 | 1.05 | 3,31 | 1,54 | 2.3 | 1,49 | 2.3 | 1.26 | 1.97 | | | 3,31 | | |
| Treated Flow: Monthly Total - TW (m*) | 815.84 | 738.55 | 779.86 | 796,17 | 1209.04 | 1227,64 | 1159.64 | 1063.29 | 745.79 | 780.1 | 718.55 | 885.45 | 10899.57 | | | | |
| Treated Flow: Monthly Avg + TW (m*/d) | 26.32 | 25,47 | 25.10 | 20,54 | 39 | 40.92 | 37.41 | 34,3 | 24,86 | 25.10 | 23.94 | 27.02 | | 29.75 | | | |
| Treated Flow: Monthly Max - TW (m/ld) | 37.86 | 35.5 | 33.09 | 37.77 | 86.15 | 66.67 | 56.6 | 62.21 | 39.51 | 33.96 | 32.33 | 82.08 | | | 86.15 | | |
| Raw Flow: Monthly Total - Raw Water Total Flow (m*) | 930,14 | 841,07 | 893.00 | 911,29 | 1266.43 | 1377.85 | 1305,5 | 1197,05 | 838.69 | 891,51 | 856.05 | 990,43 | 12299,5 | | | | |
| Raw Flow: Monthly Avg - Raw Water Total Flow (m'ld) | 30 | 29 | 28.61 | 30.38 | 40.85 | 45.93 | 42-11 | 38.61 | 27.96 | 28.77 | 28,53 | 31,95 | | 33.58 | | | |
| Raw Flow: Monthly Max - Raw Water Total Flow (m/ld) | 50.56 | 44.7 | 44.44 | 48.83 | 84.15 | 83.30 | 78.94 | 73.06 | 41.33 | 53.02 | 47,62 | 74.11 | | | 84.15 | 1 1 | |
| Turbidity: | | | | | | | | | | | | | 1 1 | | | | _ |
| Treated: Min Turbidity - TW (NTU) | 0.12 | 0 | 2 | 2 1 | 0.04 | 0.04 | 0.07 | | | | | | | | | | |
| Treated: Max Turbidity - TW (NTU) | 2.7 | 3.51 | 3.48 | 2.30 | 1.244 | 0.049 | 0.728 | 1 1 | | | | | 1 1 | | 3.51 | | |
| Filter Eff: Min Turbidity - Filt (NTU) | | | | | | | | 0.076 | 0.1 | 0.02 | 0 | 0.00 | 0.03 | | | | |
| Filter Eff: Max Turbidity - Filts (NTU) | | | | | | | | 0.6 | 0.097 | 0.7 | 0.92 | 0.76 | 0.07 | - | 4.99 | | - |
| Chemical Parameters: | | | | | | | THE COLUMN | | | | THE STREET | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | 0.003 | | 1 | < 0.003 | | 1 | - | | 0.003 | 1 | |
| Treated: Max Nitrate - TW (mgl.) | 0.052 | | | 0.053 | | | 0.057 | | | 0.1 | | 128 | | | 0.1 | | |
| Chlorine Residuals: | | | | | | 1 | | 1 | 1 | | | 1 | - | | | 1 | _ |
| Treated: Min Free Gt2 Resid - TW (mg/L) | 1,05 | 1.18 | 127 | 1.05 | 1.37 | 1.5 | 0.17 | 0.98 | 1,7 | 1.78 | 0.84 | 0,69 | | | | 0.17 | |
| Treated: Max Free CI2 Resid - TW (mg/L) | 1,69 | 1,64 | 1.68 | 1.62 | 1,79 | 1,97 | 5.05 | 2.03 | 2.29 | 2.45 | 4,13 | 4.19 | 1 | | 5.05 | - | |
| Dist: Min Free C(2 Resid - DW (mg/L) | 0.97 | 1 | 0.67 | 1.15 | 0.83 | 1,34 | 0.9 | 0.95 | 1,48 | 1,85 | 1,41 | 0.98 | | | | 0.83 | |
| Dist: Max Free Ct2 Resid - DW (mg/L) | 1,69 | 1.60 | 1.61 | 1.59 | 1.65 | 1.97 | 1.54 | 1.6 | 2.24 | 2.4 | 2.24 | 3.61 | | | 2.61 | | |
| flacti Samples Collected: | | d | 0 0 | | | | | | | | | | | | | | |
| Rew Bacti: # of samples - Well 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 26 | | | 1 - 1 | |
| Raw Bacti: # of samples - Well 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 26 | | 9 3 | | |
| Dist Bacti: # of samples - DW | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 0 | 4 | 5 | 4 | 4 | 55 | | | | 1 |
| Dist Bacti: # of TO exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 1 | | | | |
| Dist Bacti: # of EG exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | |

Drinking-Water System Number:

260006516

Drinking-Water System Name:

SONYA DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality
Small Municipal Residential

Drinking-Water System Category: Municipal Drinking Water License:

. 141-107 Issue 3

Period being reported:

-107 ISSUE 3

01/2016 12/2016

Raw Water

Raw Water (Source Name)

Well 1

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6272-7JDP43

| | Monthly Flaw Total | Deily Flow | Daily Flow | Daily Flow | Number of Days |
|----------|--------------------|------------------|------------|----------------|-----------------|
| Month | Monthly Flow Total | Daily Flow | Maximum | Peak Flow Rate | of Water Taking |
| | (m3/month) | Average (m3/day) | (m3/day) | (L/sec) | or water raking |
| Jan | 928.11 | 29.94 | 50.56 | 1.47 | 31 |
| Feb | 838.46 | 28.91 | 44.69 | 1.57 | 29 |
| Mar | 890.29 | 28.72 | 44.43 | 1.38 | 31 |
| Apr | 909.17 | 30.31 | 48.83 | 1.19 | 30 |
| Маγ | 1266.40 | 40.85 | 84.15 | 1.19 | 31 |
| Jun | 1374.50 | 45.82 | 83.39 | 1.39 | 30 |
| Jul | 1303.73 | 42.06 | 78.94 | 1.34 | 31 |
| Aug | 1193.71 | 38.51 | 73.06 | 1.35 | 31 |
| Sep | 835.02 | 27.83 | 41.33 | 1.34 | 30 |
| Oct | 888.18 | 28.65 | 53.02 | 1.30 | 31 |
| Nov | 853.70 | 28.46 | 47.60 | 1.46 | 30 |
| Dec | 988.39 | 31.88 | 74.11 | 1.28 | 31 |
| Total | 12269.66 | 401.93 | 724.11 | 16.26 | 366 |
| Avg | 1022.47 | 33.49 | 60.34 | 1.36 | 31 |
| Max | 1374.50 | 45.82 | 84.15 | 1.57 | 31 |
| Criteria | | | 170.00 | 1.30 | |

Drinking-Water System Number:

260006516

Drinking-Water System Name:

SONYA DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-107 Issue 3

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

Well 3

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6272-7JDP43

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 2.03 | 0.07 | 1.05 | 1.64 | 31 |
| Feb | 2.61 | 0.09 | 1.15 | 1.70 | 29 |
| Mar | 2.80 | 0.09 | 1.40 | 1.66 | 31 |
| Apr | 2.22 | 0.07 | 0.81 | 1.71 | 30 |
| Мау | 1.94 | 0.06 | 1.05 | 1.72 | 31 |
| Jun | 3.35 | 0.11 | 3.31 | 1.67 | 30 |
| Jul | 1.77 | 0.06 | 1.54 | 1.71 | 31 |
| Aug | 3.34 | 0.11 | 2.30 | 1.69 | 31 |
| Sep | 3.67 | 0.12 | 1.49 | 1.68 | 30 |
| Oct | 3.73 | 0.12 | 2.30 | 1.72 | 31 |
| Nov | 2.35 | 0.08 | 1.26 | 2.93 | 30 |
| Dec | 2.04 | 0.07 | 1.97 | 1.69 | 31 |
| Total | 31.85 | 1.05 | 19.63 | 21.52 | 366 |
| Avg | 2.65 | 0.09 | 1.64 | 1.79 | 31 |
| Max | 3.73 | 0.12 | 3.31 | 2.93 | 31 |
| Criteria | | | 170.00 | 1.96 | |



February 17, 2017

Ms. Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON
K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Southview Estates DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Southview Estates DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

This report is a summary of water quality information for the Southview Estates DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Southview Estates DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|--|--|---|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Total Coliforms (Distribution) 300 cfu/100mL | June 29, 2016 | Resample at adverse location and two additional locations in the distribution system. Resample results were all 0 cfu/100mL for Total Coliforms and E.Coli. | Complete |
| Permit to Take Water #7704- 7JDNKM | No failures to report | | | |
| Municipal Drinking Water Licence 141-101 | No failures to report | | | |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Drinking Water Works Permit 141- 201 | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- 1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find reports for the Southview Estates DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Onlario Clean Water Agency Performance Assessment Report Water

From: 01/01/2015 to 11/12/2016

Facility: [6262] SOUTHVIEW DRINKING WATER SYSTEM
Works: [6263] SOUTHVIEW DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 93/2016 | 04/2015 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <total></total> | <avg></avg> | <-Max> | <-Min,-> | «-Criera-> |
|---|-----------|---------|---------|---------|---------|------------|-------------|---------|---------|---------|---------|---------|-----------------|-------------|--------|------------|------------|
| Flows: | | | | | | | | | | | | | | | | | |
| Raw Flow: Monthly Total - RW (m*) | 1907.18 | 1751.7 | 2015.66 | 1913,17 | 2550.78 | 2884.53 | 2984.74 | 2654,1 | 2140.04 | 2154.5 | 1854.71 | 1899.30 | 26710,5 | | | | |
| Raw Flow: Monthly Total - RW1 (m*) | 965,98 | 684.38 | 1046.83 | 992.74 | 1267,67 | 1460.07 | 1502,55 | 1347.59 | 1078,92 | 1079.81 | 930.6 | 957,55 | 13515,79 | | | | |
| Rew Flow: Monthly Total - RW2 (m*) | 940.2 | 867.32 | 968.83 | 920.43 | 1283.11 | 1424.46 | 1482.19 | 1306.41 | 1061.12 | 1074.69 | 924.11 | 941.84 | 13194.71 | | | | |
| Raw Flow: Monthly Avg - RW (m*d) | 61,52 | 60.4 | 65.02 | 63.77 | 82.28 | 95,15 | 96.28 | 85.62 | 71.33 | 69.5 | 61,82 | 61,27 | | 72.92 | | | |
| Raw Flow: Monthly Avg - RW1 (m1/d) | 31.19 | 30.5 | 33.77 | 33.09 | 40.89 | 45.67 | 48.47 | 43.47 | 35.96 | 34.83 | 31.02 | 30.89 | | 36.9 | | | |
| Raw Flow: Monthly Avg - RW2 (m*/d) | 30.33 | 29,91 | 31.25 | 30,68 | 41,39 | 47,48 | 47,81 | 42.14 | 35.37 | 34.67 | 30.8 | 30,38 | | 36,02 | | | |
| Raw Flow: Monthly Max - RW (m*/d) | 92.02 | 90.17 | 135.53 | 104.3 | 165.03 | 141,16 | 137,07 | 140.27 | 110.35 | 102.76 | 82.09 | 86.52 | | | 165.03 | | 484 |
| Raw Flow: Monthly Max - RW1 (m*d) | 47.26 | 46.92 | 97.6 | 70,78 | 84.05 | 74.2 | 70,33 | 70.14 | 54.18 | 49.42 | 40.83 | 43.57 | | | 97.8 | | |
| Raw Flow: Monthly Max - RW2 (m*/d) | 44.74 | 43.25 | 02.34 | 49.67 | 80.98 | 69,93 | 66.74 | 70.13 | 57,76 | 53.34 | 41,26 | 43.12 | | | 60.98 | | |
| Treated Flow: Monthly Total - TW (m²) | 1316.59 | 1176.24 | 1324.52 | 1261,79 | 1805,77 | 2045.85 | 2107,14 | 1851,16 | 1494,81 | 1459.63 | 1265.19 | 1321.67 | 18430.36 | | | (a con 11 | |
| Treated Flow: Monthly Avg - TW (m*/d) | 42.47 | 40,56 | 42.75 | 42.06 | 58.25 | 68.2 | 67.97 | 59.71 | 49.53 | 47.DE | 42.17 | 42.53 | | 50.31 | | | |
| Treated Flow: Monthly Max - TW (m*d) | 54,44 | 57,01 | 51,62 | 60,62 | 93.24 | 102.48 | 95.65 | 82.65 | 71.11 | 64.82 | 55,37 | 58,16 | | | 102.48 | | 484 |
| Turbidity: | | | | | | | | | | | | | | | | | |
| Raw: Max Turbidity - RW (NTU) | 3.41 | 2,95 | 1,16 | 2.2 | 0.13 | 0.25 | 0.17 | 0,16 | 1,16 | 0.23 | 0.21 | 0.02 | 1,43 | | 10.31 | | |
| Treated: Max Turbidity - TW (NTU) | 4.94 | 0.53 | 0.96 | 4.94 | 4.95 | 4.94 | 4.94 | 4.38 | 4.96 | 4.96 | 4.96 | 4.97 | | | 4.97 | | |
| Filter Eff: Min Turbidity - Filt1 (NTU) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .0 | | | | 0 | |
| Filter Eff: Min Turbidity - Filt2 (NTU) | 0 | 0 | 0 | 0 | 0.06 | 0 | 0 | 0.06 | 0 | 0 | 0 | 0 | ci I | | | 0 | |
| Filter Eff: Max Turbidity - Filt1 (NTU) | 2 | 0.62 | 0.84 | 2.06 | 2 | 2.06 | 2.05 | 2.02 | 2.04 | 2.04 | 2.06 | 2 | | | 2.06 | | 1 |
| Filter Eff: Max Turbidity - Filt2 (NTU) | 2 | 0.26 | 1,63 | 2.05 | 2.05 | 2.02 | 2.06 | 2.05 | 2.01 | 2.06 | 2.06 | 2.05 | | | 2.06 | | 3 |
| Chemical Parameters: | | | | | | W = 5 = 61 | | | | | | | | | 0.00 | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 □ | 1 | | 0.003 | | | < 0.003 | | | < 0.003 | | | | | 0.003 | | |
| Treated: Max Nitrate - TW (mg/L) | 0.242 | | | 0.444 | | | 0.121 | | | 0,07 | | | 33 1 | | 0.444 | | 10 |
| Distribution: Max THM + DW (µg/l) | 57 | | | 50 | | | 65 | | | 50 | | | 24 7 | | 65 | | 100 |
| Chlorine Residuals: | | | | | | 199 | (A) 100 (A) | | | | 100 | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 1.14 | 1,53 | 1 1 | 0.66 | 0 | 0 | 0.65 | 0.93 | 0 | 0.51 | 1.62 | 0.25 | | | | 0 | |
| Treated: Max Free Ct2 Resid - TW (mg/L) | 1.97 | 2.13 | 2,44 | 4.43 | 4,4 | 4.83 | 5.11 | 2.23 | 4.96 | 4,42 | 4.23 | 4,32 | | | 5.11 | | |
| Dist: Min Free CI2 Resid - DW (mg/L) | 0.82 | 1.03 | 0.78 | 0.47 | 0.88 | 0.0 | 1.09 | 0.62 | 0.0 | 0.98 | 1.12 | 0.82 | | | | 0.47 | 0.05 |
| Dist: Max Free Ct2 Resid - DW (mg/L) | 1.8 | 2,13 | 2.15 | 3,83 | 2.25 | 2.24 | 2.19 | 2.33 | 2.47 | 2.24 | 2.8 | 2.27 | 77 | | 3.83 | | |
| Bacti Samples Collected: | | | | | | | 1 | | | | | | | | | | |
| Raw Bacti: # of samples -RW | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 52 | | | | |
| Treated Bacti: F of samples - TW | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 4 | 8 | 4 | 53 | | | | |
| Dist Bacti: # of samples - DW | 12 | 15 | 12 | 12 | 15 | 15 | 12 | 15 | 12 | 12 | 15 | 12 | 159 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Treated Bacti: # of EC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 1 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Raw Water Flow Summary

Drinking-Water System Number: 220012260

Drinking-Water System Name: SOUTHVIEW DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-101

Period being reported: 01/2016 - 12/2016

Raw Water (Source Name) RW

Drinking Water Permit to Take Water No: 7704-7JDNKM

| Month | Monthly Flow Total | Daily Flow Average | Daily Flow Maximum | Daily Flow Average Flow | Daily Flow Peak Flow Rate |
|----------|--------------------|-----------------------|-----------------------|----------------------------|------------------------------|
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 1907.18 | 61.52 | 92.02 | 0.71 | 6.00 |
| Feb | 1751.70 | 60.40 | 90.17 | 0.69 | 6.10 |
| Mar | 2015.66 | 65.02 | 135.53 | 0.75 | 6.10 |
| Apr | 1913.17 | 63.77 | 104.30 | 0.74 | 6.10 |
| May | 2550.78 | 82.28 | 165.03 | 0.96 | 4.80 |
| Jun | 2884.53 | 96.15 | 141.16 | 1.11 | 6.20 |
| Jul | 2984.74 | 96.28 | 137.07 | 1.11 | 6.30 |
| Aug | 2654.10 | 85.62 | 140.27 | 1.00 | 5.70 |
| Sep | 2140.04 | 71.33 | 110.35 | 0.83 | 6.10 |
| Oct | 2154.50 | 69.50 | 102.76 | 0.80 | 6.10 |
| Nov | 1854.71 | 61.82 | 82.09 | 0.71 | 5.80 |
| Dec | 1899.39 | 61.27 | 86.52 | 0.71 | 5.90 |
| Total | 26710.50 | B B 8 | 377 | | 177 |
| Avg | 2225.88 | 72.92 | :24 | 0.84 | (144) |
| Max | 2984.74 | | 165.03 | 515 : | 6.30 |
| Criteria | :== | (22) | 484.00 | 44 | 5.60 |

Treated Water Flow Summary

Drinking-Water System Number: 220012260

Drinking-Water System Name: SOUTHVIEW DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-101

Period being reported: 01/2016 - 12/2016

Treated Water (Source Name) TW

| | Monthly Flour Total | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|---------------------|------------|------------|--------------|----------------|
| Month | Monthly Flow Total | Average | Maximum | Average Flow | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 1316.59 | 42.47 | 54.44 | 0.50 | 2.81 |
| Feb | 1176.24 | 40.56 | 57.01 | 0.50 | 2.83 |
| Mar | 1324.52 | 42.73 | 51.62 | 0.50 | 3.01 |
| Apr | 1261.79 | 42.06 | 60.62 | 0.49 | 2.78 |
| May | 1805.77 | 58.25 | 93.24 | 0.68 | 10.00 |
| Jun | 2045.85 | 68.20 | 102.48 | 0.73 | 3.49 |
| Jul | 2107.14 | 67.97 | 95.65 | 0.80 | 4.56 |
| Aug | 1851.16 | 59.71 | 82.65 | 0.71 | 4.45 |
| Sep | 1494.81 | 49.83 | 71.11 | 0.59 | 3.43 |
| Oct | 1459.63 | 47.08 | 64.82 | 0.56 | 10.31 |
| Nov | 1265.19 | 42.17 | 55.37 | 0.50 | 3.25 |
| Dec | 1321.67 | 42.63 | 58.16 | 0.50 | 2.57 |
| Total | 18430.36 | 55. | | | - |
| Avg | 1535.86 | 50.31 | | 0.59 | ; <u>==</u> : |
| Max | 1321.67 | | 102.48 | | 10.31 |
| Criteria | | - | 484.00 | | 5.60 |



February 17, 2017

Ms. Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON
K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Victoria Place DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Victoria Place DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Victoria Place DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Victoria Place DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act*, 2001, the members of the municipal service board: or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Well 1: The seal was broken. Well 7: Some of the bolts holding the cap in place were loose. | Identified May 17, 2016 | The seal on well #1 was replaced and the cap on well #7 was repaired by a licenced well technician on 22/06/16. | |
| | | | Training on the monthly well inspection work order requirements was completed with staff. | |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Permit to Take Water #7407-7JBS7X | No failures to report | | | |
| Municipal Drinking Water Licence 141-114 | No failures to report | | | |
| Drinking Water Works Permit 141-214 | | | | |
| Provincial Officer's Order | No failures to report | | | |

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Please find attached a copy of reports for the Victoria Place DWS which contains all required flow information.

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When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Onlario Clean Waler Agency Performance Assessment Report Water

From: 01/01/2016 to 31/12/2016

Facility: [8670] VICTORIA PLACE DRINKING WATER SYSTEM
Works: [6870] VICTORIA PLACE DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2015 | 12/2016 | STotal> | <-Avg.→ | s-Max-a | <-Min-> | <criteria></criteria> |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|-----------------------|
| Flows: | | | | - | | | | | | | | | | | - | | - |
| Raw Flow: Monthly Total - Well1 (m*) | 605.32 | 541,16 | 636.47 | 672.6 | 838.41 | 398.88 | 777.86 | 771.18 | 679.83 | 741.79 | 684.42 | 711.08 | 8050 | _ | _ | + | _ |
| Raw Flow: Monthly Total - Well3 (m*) | 334,65 | 298.77 | 352.08 | 372.31 | 465,1 | 448.25 | 447,34 | 440.65 | 386.15 | 418.39 | 381.95 | 394.63 | 4740.47 | | | | |
| Raw Flow: Monthly Total - Well2 (m²) | 447,28 | 395.87 | 487.86 | 491.97 | 616.61 | 582.48 | 593.21 | 582.91 | 506.93 | 545.92 | 499.24 | 508 34 | 6238.42 | | | | |
| Raw Flow: Monthly Total - Well7 (m²) | 1177,89 | 1007,41 | 1223.69 | 1252.93 | 1721.69 | 2095.83 | 2020.22 | 1924.5 | 1827,32 | 1703,96 | 1542.35 | 1754.66 | 19252.45 | | | | |
| Raw Flow: Monthly Avg - Well1 (m1/d) | 19.53 | 18.65 | 20.53 | 22.42 | 27.05 | 13.3 | 25.09 | 24.88 | 22.66 | 23.93 | 22.81 | 22.94 | | 21,98 | 1 | _ | |
| Raw Flow: Monthly Avg - Well3 (m1/d) | 10.8 | 10.3 | 11,36 | 12.41 | 15 | 14,94 | 14,43 | 14.21 | 12.87 | 13.5 | 12.73 | 12.74 | " | 12.94 | | | |
| Raw Flow: Monthly Avg - Well2 (m1/d) | 14.43 | 13.64 | 15.09 | 16.4 | 19.89 | 19.42 | 19,14 | 18.8 | 16.9 | 17,61 | 18.64 | 15,4 | | 17,03 | | | |
| Raw Flow: Monthly Avg - Well7 (m1/d) | 38 | 34.74 | 39,47 | 41.76 | 55,54 | 69,86 | 65,17 | 62,08 | 60,91 | 54.97 | 51,41 | 56,6 | | 52.54 | | | |
| Raw Flow: Monthly Max - Well1 (m1/d) | 39.67 | 43.92 | 44.38 | 60.46 | 82.01 | 59,54 | 51.5 | 54.19 | 45.64 | 47.98 | 48.81 | 41.71 | | | 82.01 | | 130 |
| Raw Flow: Monthly Max - Well3 (m7d) | 21.96 | 24,23 | 24,54 | 33.56 | 45,48 | 63.65 | 29.5 | 36.65 | 26.03 | 27.03 | 27.34 | 23.17 | 2 | | 63.65 | | 101 |
| Raw Flow: Monthly Max - Well2 (mYd) | 29,12 | 32.16 | 32.49 | 44.52 | 60.59 | 63,88 | 38.97 | 48.59 | 34.35 | 35.26 | 35.69 | 29.76 | | | 83.88 | _ | 101 |
| Raw Flow; Monthly Max - Well7 (m*/d) | 99,84 | 75.95 | 85.04 | 84.77 | 126 | 157.06 | 101.59 | 89.33 | 96.69 | 112.29 | 100.7 | 94,51 | | | 157.06 | | 331 |
| Treated Flow: Monthly Total - TW (m*) | 2584.69 | 2358.42 | 2689.31 | 2890,19 | 3694.84 | 3589,48 | 3867.41 | 3753.16 | 3460.9 | 3456,12 | 3151.62 | 3405.9 | 38833.04 | | | 1 - | |
| Treated Flow: Monthly Avg - TW (m*/d) | 83.38 | 61.32 | 86.75 | 95.34 | 119,19 | 119.65 | 124.76 | 122.04 | 115.38 | 111,49 | 105.05 | 100.0 | | 106.27 | | | |
| Treated Flow: Monthly Max - TW (m²/d) | 94.99 | 103.25 | 108.69 | 128.26 | 161,77 | 141,2 | 149.98 | 142.77 | 149.58 | 134.55 | 122.65 | 126.31 | | | 161.77 | | 331 |
| Raw Flow; Monthly Total - RW (m1) | 2565.14 | 2243.01 | 2680.1 | 2789.81 | 3641,81 | 3525.44 | 3838,63 | 3719.24 | 3400.23 | 3410,66 | 3107.96 | 3368,91 | 38290.34 | | | | |
| Raw Flow: Monthly Avg - RW (m1/d) | 82.75 | 77.35 | 86.45 | 92.99 | 117,48 | 117.51 | 123.83 | 119.98 | 113.34 | 110 | 103.6 | 108.67 | in - | 104.5 | 1 | | 1 |
| Raw Flow: Monthly Max - RW (m1/d) | 129.44 | 113.63 | 133.45 | 138.54 | 168.08 | 157.06 | 170.02 | 178.16 | 161.5 | 161.21 | 153.21 | 157.32 | 7 | | 188.08 | | |
| Turbidity: | | - | | 1 | - | | | - | | | 1000000 | 1 | | | | 1 | _ |
| Raw: Max Turbidity - Well1 (NTU) | 0.05 | 0.1 | 0.1 | 0.3 | 0.1 | 0.21 | 0.14 | 80.0 | 0.1 | 0.1 | 0.07 | 0.03 | 2 | | 0.3 | | |
| Raw: Max Turbidity - Well3 (NTU) | 0.09 | 0,1 | 0.00 | 0.34 | 0.16 | 0.14 | 0.08 | 0.06 | 0.12 | 0.13 | 0.1 | 0.14 | | - | 0.34 | _ | - |
| Raw; Max Turbidity - Well2 (NTU) | 0.06 | 0.12 | 0.09 | 0.39 | 0.09 | 0.18 | 0.1 | 0.11 | 80.0 | 0.00 | 0.03 | 0.09 | 7 | | 0.39 | _ | |
| Raw: Max Turbidity - Well7 (NTU) | 0.13 | 0.08 | 0.12 | 0.22 | 0.07 | 0.09 | 0.06 | 0.12 | 0.06 | 0.06 | 0.03 | 0.1 | | | 0.22 | | |
| Chemical Parameters: | | | | | | | 30000 | 1 | 1 | | _ | | | | | - | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | < 0.003 | | | < 0.003 | | | | | 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 5.4 | | | 3.78 | | | 4.19 | | | 4.94 | | | 17 | | 5.4 | | 10 |
| Distribution: Max THM - DW (µg/l) | 17 | | | 15 | | | 27 | 1 | | 24 | 1 1 | 1 | | | 27 | _ | 100 |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 1.1 | 1,23 | 1,17 | 1,15 | 0.98 | 1.19 | 1;15 | 0.96 | 1.21 | 1,23 | 1.28 | 1,33 | | | | 0.96 | |
| Treatest: Max Free Cl2 Resid - TW (mg/L) | 1.54 | 1,47 | 1.55 | 1.59 | 2.13 | 1,51 | 1,46 | 1.39 | 1.69 | 1.75 | 1,68 | 1.68 | 9 | | 2.13 | | |
| Dist: Min Free Ct2 Resid - DW (mg/L) | 0.9 | 0.51 | 0.97 | 0.89 | 0.59 | 0.52 | 0.74 | 0.37 | 0.42 | 0.62 | 0.66 | 0.73 | | | | 0.37 | 0.05 |
| Dist: Max Free CI2 Resid - DW (mg/L) | 1.3 | 1,42 | 1,33 | 1.28 | 1,47 | 1,44 | 1,37 | 1.29 | 1.33 | 1.57 | 1.78 | 1,42 | | | 1,78 | | |
| Becti Samples Collected: | | | | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - Well1 | 3 | 5 | 4 | 14 | 5 | -4 | 4 | 5 | 4 | 5 | 4 | 4 | 51 | | | | |
| Raw Bacti: # of samples - Well3 | 3 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 51 | | | | |
| Rew Bacti: # of samples - Welt2 | 3 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 51 | | | | N . |
| Raw Bacti: # of samples - Well7 | 3 | 5 | 4 | -4 | S | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 51 | | 1 | | |
| Treated Bacti: # of samples - TW | 4 | 5 | 4 | 4 | 6 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 53 | | | | |
| Dist Sacti: # of samples - DW | 12 | 15 | 12 | 12 | 17 | 12 | 13 | 15 | 12 | 15 | 12 | 12 | 159 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0. | 0 | 0 | 0 | 0. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Treated Bacti: # of EC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | _ | |

Well 1 Flow Summary

Drinking-Water System Number: 220011895

Drinking-Water System Name: VICTORIA PLACE DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-114

Period being reported: 01/2016 - 12/2016

Raw Water (Source Name)

Source Type:

Drinking Water Permit to Take Water No:

7407-7JBS7X

| Month | Monthly Flow Total (m3/month) | Daily Flow Average | Daily Flow Maximum | Daily Flow Average Flow | Daily Flow Peak Flow Rate |
|----------|----------------------------------|--------------------|-----------------------|----------------------------|------------------------------|
| | | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 605.32 | 19.53 | 39.67 | 0.23 | 1.39 |
| Feb | 541.16 | 18.66 | 43.92 | 0.32 | 1.39 |
| Mar | 636.47 | 20.53 | 44.38 | 0.28 | 1.39 |
| Apr | 672.60 | 22.42 | 60.46 | 0.26 | 1.39 |
| Мау | 838.41 | 27.05 | 82.01 | 0.31 | 1.38 |
| Jun | 398.88 | 13.30 | 59.54 | 0.15 | 1.38 |
| Jul | 777.86 | 25.09 | 51.50 | 0.29 | 1.35 |
| Aug | 771.18 | 24.88 | 64.19 | 0.29 | 2.00 |
| Sep | 679.83 | 22.66 | 45.64 | 0.26 | 1.36 |
| Oct | 741.79 | 23.93 | 47.98 | 0.28 | 1.37 |
| Nov | 684.42 | 22.81 | 48.81 | 0.26 | 1.37 |
| Dec | 711.08 | 22.94 | 41.71 | 0.27 | 1.38 |
| Total | 8059.00 | | 22 | 122 | |
| Avg | 671.58 | 21.98 | | 0.27 | |
| Мах | 838.41 | 7207 | 82.01 | | 2.00 |
| Criteria | | (50) | 130.00 | | 1.50 |

Well 2 Flow Summary

Drinking-Water System Number:

220011895

Drinking-Water System Name:

VICTORIA PLACE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-114

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

Well2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

7407-7JBS7X

| | Monthly Flow Total | Daily Flow | Daily Flow | Daily Flow | Daily Flow |
|----------|--------------------|----------------|------------|----------------|----------------|
| Month | - | Average | Maximum | Peak Flow Rate | Peak Flow Rate |
| | (m3/month) | (m3/day) | (m3/day) | (L/min) | (L/sec) |
| Jan | 447.28 | 14.43 | 29.12 | 0.17 | 1.02 |
| Feb | 395.67 | 13.64 | 32.16 | 0.24 | 1.02 |
| Mar | 467.86 | 15.09 | 32.49 | 0.20 | 1.02 |
| Apr | 491.97 | 16.40 | 44.52 | 0.19 | 1.02 |
| May | 616.61 | 19.89 | 60.59 | 0.23 | 1.02 |
| Jun | 582.48 | 19.42 | 83.88 | 0.23 | 1.03 |
| Jul | 593.21 | 19.14 | 38.97 | 0.22 | 1.03 |
| Aug | 582.91 | 18.80 | 48.59 | 0.22 | 2.00 |
| Sep | 506.93 | 16.90 | 34.35 | 0.20 | 1.02 |
| Oct | 545.92 | 17.61 | 35.26 | 0.21 | 1.01 |
| Nov | 499.24 | 16.64 | 35.69 | 0.19 | 1.04 |
| Dec | 508.34 | 16.40 | 29.76 | 0.19 | 1.03 |
| Total | 6238.42 | :##7 | ** | ** | :+ #: |
| Avg | 519.87 | 17.03 | | 0.21 | - |
| Max | 616.61 | 255 | 83.88 | ne: | 2.00 |
| Criteria | | 7 46 14 | 101.00 | 10 | 1.01 |

Well 3 Flow Summary

Drinking-Water System Number:

220011895

Drinking-Water System Name:

VICTORIA PLACE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-114

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

Well3

Source Type:

Drilled

Drinking Water Permit to Take Water No:

7407-7JBS7X

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/min) | Daily Flow Peak Flow Rate (L/sec) | | | | | | |
|----------|----------------------------------|-----------------------------------|-----------------------------------|---|---|-----|--------|-------|-------|------|------|
| | | | | | | Jan | 334.65 | 10.80 | 21.96 | 0.13 | 0.77 |
| | | | | | | Feb | 298.77 | 10.30 | 24.23 | 0.18 | 0.77 |
| Mar | 352.08 | 11.36 | 24.54 | 0.15 | 0.77 | | | | | | |
| Apr | 372.31 | 12.41 | 33.56 | 0.14 | 0.77 | | | | | | |
| May | 465.10 | 15.00 | 45.48 | 0.17 | 0.77 | | | | | | |
| Jun | 448.25 | 14.94 | 63.65 | 0.17 | 0.78 | | | | | | |
| Jul | 447.34 | 14.43 | 29.50 | 0.17 | 0.77 | | | | | | |
| Aug | 440.65 | 14.21 | 36.68 | 0.16 | 2.00 | | | | | | |
| Sep | 386.15 | 12.87 | 26.03 | 0.15 | 0.77 | | | | | | |
| Oct | 418.39 | 13.50 | 27.03 | 0.16 | 0.77 | | | | | | |
| Nov | 381.95 | 12.73 | 27.34 | 0.15 | 0.76 | | | | | | |
| Dec | 394.83 | 12.74 | 23.17 | 0.15 | 0.77 | | | | | | |
| Total | 4740.47 | 22 | 221 | (22) | ** | | | | | | |
| Avg | 395.04 | 12.94 | | 0.16 | | | | | | | |
| Max | 465.10 | | 63.65 | 32 5 | 2.00 | | | | | | |
| Criteria | 7E | - | 101.00 | : 11 2 | 1.17 | | | | | | |

Well 7 Flow Summary

Drinking-Water System Number: 220011895

Drinking-Water System Name: VICTORIA PLACE DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-114

Period being reported: 01/2016 - 12/2016

Raw Water (Source Name) Well7
Source Type: Drilled
Drinking Water Permit to Take Water No: 7407-7JBS7X

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Average Flow Rate (L/s) | Daily Flow Peak Flow Rate (L/sec) | | | | | | |
|----------|----------------------------------|-----------------------------|-----------------------------------|--|---|-----|---------|-------|-------|------|------|
| | | | | | | Jan | 1177.89 | 38.00 | 99.84 | 0.44 | 3.51 |
| | | | | | | Feb | 1007.41 | 34.74 | 75.95 | 0.41 | 3.51 |
| Mar | 1223.69 | 39.47 | 85.04 | 0.43 | 3.52 | | | | | | |
| Apr | 1252.93 | 41.76 | 84.77 | 0.51 | 3.53 | | | | | | |
| May | 1721.69 | 55.54 | 128.00 | 0.64 | 3.53 | | | | | | |
| Jun | 2095.83 | 69.86 | 157.06 | 0.81 | 3.52 | | | | | | |
| Jul | 2020.22 | 65.17 | 101.59 | 0.76 | 3.52 | | | | | | |
| Aug | 1924.50 | 62.08 | 89.33 | 0.72 | 5.00 | | | | | | |
| Sep | 1827.32 | 60.91 | 96.69 | 0.71 | 3.50 | | | | | | |
| Oct | 1703.96 | 54.97 | 112.29 | 0.64 | 3.50 | | | | | | |
| Nov | 1542.35 | 51.41 | 100.70 | 0.60 | 3.49 | | | | | | |
| Dec | 1754.66 | 56.60 | 94.51 | 0.66 | 3.60 | | | | | | |
| Total | 19252.45 | K 500 / | 1 88 0 | | | | | | | | |
| Avg | 1604.37 | 52.54 | 22 | 0.61 | - | | | | | | |
| Max | 2095.83 | *** | 157.06 | :== | 5.00 | | | | | | |
| Criteria | 1 44 0 | :#4 | 331.00 | == | 3.83 | | | | | | |

Treated Water Flow Summary

Drinking-Water System Number: 220011895

Drinking-Water System Name: VICTORIA PLACE DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-114

Period being reported: 01/2016 - 12/2016

Treated Water (Source Name) TW

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow | Daily Flow | Daily Flow |
|----------|----------------------------------|--------------------------------|------------|-------------------|----------------|
| | | | Maximum | Average Flow | Peak Flow Rate |
| | | | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 2584.69 | 83.38 | 94.99 | 0.97 | 4.61 |
| Feb | 2358.42 | 81.32 | 103.25 | 1.01 | 4.62 |
| Mar | 2689.31 | 86.75 | 108.69 | 1.00 | 4.71 |
| Apr | 2890.19 | 96.34 | 128.28 | 1.12 | 5.28 |
| May | 3694.84 | 119.19 | 161.77 | 1.38 | 5.68 |
| Jun | 3589.48 | 119.65 | 141.80 | 1.39 | 10.00 |
| Jul | 3867.41 | 124.76 | 149.98 | 1.45 | 5.37 |
| Aug | 3783.16 | 122.04 | 142.77 | 1.41 | 10.00 |
| Sep | 3460.90 | 115.36 | 149.56 | 1.34 | 5.40 |
| Oct | 3456.12 | 111.49 | 134.55 | 1.29 | 10.00 |
| Nov | 3151.62 | 105.05 | 122.65 | 1.22 | 4.82 |
| Dec | 3406.90 | 109.90 | 126.31 | 1.27 | 4.83 |
| Total | 38933.04 | | | 0 00 0 | 57 |
| Avg | 3244.42 | 106.27 | == | 1.24 | 40 |
| Max | 3406.90 | 1 44 2 | 161.77 | | 10.00 |
| Criteria | | :##% | 331.00 | (- -: | 3.83 |



February 17, 2017

Ms Helena Milchin-Raposo Public Works – Contract Coordinator Water/Wastewater City of Kawartha Lakes 12 Peel St. Lindsay, ON

Re: Summary Report - Safe Drinking Water Act - Western Trent/Palmina DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Western Trent/Palmina DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely

Julie Preslie
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jpreslie@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Western Trent/Palmina Drinking Water System (DWS), published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Western Trent/Palmina DWS is categorized as a Large Municipal Residential Drinking Water System. This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Pressure – power failure caused issue with high lift pumps. | 3-Jun-2016 | Restored power & pressure, flushed system, sampled for bacti and chlorine residuals. | Complete |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Pressure – power failure caused issue with high lift pumps. | 18-Oct-2016 | BWA delivered to residents, restored power, pressure, flushed system, sampled for bacti and chlorine residuals. BWA rescinded after sample results received. | Complete |
| Municipal Drinking Water Licence 141- 121 | No failures to report | | | |
| Drinking Water Works Permit 141-221 | No failures to report | | | |
| Permit to Take Water # 6784- 7JDRFS | No failures to report | | | |
| Permit to Take Water # 7211- 7JCMRV | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

MOECC compliance inspection for 2016 was conducted on May 18, 2016. No Issues were identified.



What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find the 2016 Performance Assessment Report, the Facility Flow Summary Report and a summary of Raw Water Flow Rates for the Western Trent/Palmina DWS. These summaries contain all required flow information.

The maximum allowable water taking for Well 1 (Palmina Well) is 294m³/day and the maximum water taken in one day in 2016 was 139.90m³. The maximum allowable water taking for Well (Western Trent Well) is 392m³/day and the maximum water taken in one day in 2016 was 162.11m³.

The maximum flow rate permitted for Well 1 (Palmina) is 3.41L/sec. (Note that the permit to take water allows for 205L/min which equals 3.41L/sec.) The maximum flow rate in 2016 was 3.99L/s and the average flow rate was 0.29L/sec.

The maximum flow rate permitted for Well 2 (Western Trent Well) is 4.55L/sec. (Note that the permit to take water allows for 273L/min which equals 4.55L/sec.) The maximum flow rate in 2016 was 4.00L/s and the average flow rate was 0.48L/sec.

The rated capacity for the Western Trent/Palmina DWS is 293.76m³/day. The maximum daily treated flow in 2016 was 162.51m³. The average daily treated flow in 2016 was 71.19m³.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.



When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Attachments

End

Ontario Clean Water Agency Performance Assessment Report Water

From

01/01/2018 to 31/12/2016

Facility: [1281] WESTERN TRENT DRINKING WATER SYSTEM

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 05/2016 | 09/2015 | 10/2016 | 11/2016 | 12/2016 | e-Total> | KHANG> | -Maxim | C. Miles | <créeria></créeria> |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--------|---------|----------|---------------------|
| Flows: | | | | | | | | | | | | | | | | | |
| Raw Flow: Monthly Total - RW1 - Palmina Well (m*) | 13.67 | 13.74 | 71.92 | 388.78 | 1085.00 | 1297.68 | 1543.94 | 1621.54 | 719.31 | 716.14 | 67410 | 830.88 | 8974.90 | | | | |
| Raw Flow: Monthly Total - RW2 - Western Trent Well (m*) | 1425.74 | 1291.09 | 1429,74 | 1147.18 | 1038 79 | 1305.02 | 1670.47 | 1737.56 | 1244.50 | 1035.50 | 812.05 | 881.83 | 15020.47 | | | | |
| Raw Flow: Monthly Avg - RW1 - Palmina Well (m1/d) | 0.45 | 0,47 | 2.32 | 12.96 | 35 03 | 43.26 | 49.71 | 52.31 | 23.98 | 23.10 | 22.47 | 26 80 | | 24.40 | | | |
| Raw Flow: Monthly Avg - RW2 - Western Trent Well (m'/d) | 45.99 | 44.52 | 46.12 | 36.24 | 33.51 | 43.53 | 53.80 | 56.05 | 41.48 | 33.40 | 27.07 | 28.45 | | 41.02 | | | |
| Raw Flow: Monthly Max - RW1 - Palmina Well (m*/d) | 8.47 | 3.39 | 54.56 | 68 71 | 113.10 | 123.82 | 102.89 | 139.90 | 61 53 | 59.65 | 54.26 | 56.33 | | | 139.90 | | 294 00 |
| Raw Flow: Monthly Max - RW2 - Western Trent Well (m'/d) | 77.26 | 79.87 | 83.98 | 88.53 | 96.96 | 116.16 | 162.11 | 122.75 | 95.67 | 89.43 | 55.98 | 73.31 | | | 162.11 | | 392 00 |
| Treated Flow: Monthly Total - TW (m*) | 1656.22 | 1520.54 | 1665.81 | 1693.77 | 2327 99 | 2769.10 | 3270.76 | 3504.60 | 2140.18 | 1942.66 | 1701.44 | 1907.24 | 26100.29 | | | | |
| Treated Flow: Monthly Avg - TW (m1/d) | 53.43 | 52.43 | 53.74 | 56.46 | 75.10 | 92.30 | 105.51 | 113.05 | 71.34 | 62.67 | 56.71 | 61.52 | | 71.19 | | | |
| Treated Flow: Monthly Max - TW (m*/d) | 63.79 | 64.62 | 63.17 | 73.57 | 122.81 | 134.16 | 144.05 | 162.51 | 98.41 | 77.36 | 73.42 | 78-20 | | | 162.51 | | 293.76 |
| Turbidity: | | | | | | | | | | | | | | | | | |
| Raw: Max Turbidity - RW1 - Palmina Well (NTU) | 0.13 | 0.15 | 0,16 | 0.16 | 0.13 | 0.21 | 0.16 | 0.16 | 0.14 | 0.12 | 0,14 | 0.24 | | | 0.24 | | |
| Raw: Max Turbidity - RW2 - Western Trent Well (NTU) | 0.17 | 0.20 | 0.15 | 0.12 | 0.15 | 0.25 | 0.14 | 0.15 | 0.17 | 0.10 | 0.19 | 0.30 | | | 0.33 | | |
| Filter Eff: Min Turbidity - Filt1 (NTU) | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 0.00 | 0.04 | 0.00 | 0.04 | 0.04 | 0.04 | 0.04 | | | | 0.00 | |
| Filter Eff: Min Turbidity - Filt2 (NTU) | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 0.00 | 0.04 | 0.02 | 0.04 | 0.04 | 0.04 | 0.04 | | | | 0.00 | |
| Filter Eff: Max Turbidity - Filt1 (NTU) | 0.26 | 0.15 | 0.21 | 0.22 | 0.21 | 1.53 | 68.0 | 1.53 | 1.53 | 0.58 | 0.64 | 0.55 | | | 1.53 | | 1.00 |
| Filter Eff: Max Turbidity - Filt2 (NTU) | 0.51 | 0.13 | 0.19 | 0.14 | 0.23 | 1.53 | 0.67 | 0.70 | 0.96 | 0.83 | 1.29 | 1.30 | | | 1.53 | | 1.00 |
| Chemical Parameters: | | | | | | | | | | | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | | < 0.003 | | | < 0.003 | | | < 0.003 | | | | | < 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 0.277 | | | 0.081 | | | 0.203 | | | 1.14 | | | | | 1,14 | | 10 |
| Distribution: Max THM - DW (pg/l) | 32 | | | 32 | | | 74 | | | 49 | | | | | 74: | | 100 |
| Chlorine Residuals: | | | | | | | | | | | | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 1.12 | 1.24 | 1,30 | 1.36 | 1.29 | 0.68 | 1.15 | 0.00 | 5.44 | 0.40 | 1.47 | 1,56 | | | | 0.00 | 1.30 |
| Treated: Max Free Ct2 Resid - TW (mg/L) | 1.74 | 1.72 | 1.67 | 1.74 | 2.29 | 4.14 | 1.97 | 1.90 | 2.52 | 224 | 1.92 | 211 | | | 4.14 | | |
| Dist: Min Free Cl2 Resid - DW (mg/L) | 1,16 | 1.20 | 1.19 | 1.22 | 1.23 | 1.26 | 0.97 | 1.24 | 1:24 | 1.26 | 1.24 | 0.76 | | | | 0.76 | 0.05 |
| Dist: Max Free CI2 Resid - DW (mg/L) | 1.51 | 1.49 | 1.91 | 1.71 | 1.72 | 1.48 | 2.30 | 1.52 | 7.48 | 1.56 | 1.48 | 1.81 | | | 2.30 | | |
| Bacti Samples Collected: | | | | | | | | | | | | | 15 | | | | |
| Raw Bacti: # of samples - RW1 - Palmina Well | 4 1 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 52 | | | | |
| Raw Becti: # of samples - RW2 - Western Trent Well | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | -4 | 5 | 4 | 4 | 52 | | | | |
| Treated Bacti: 9 of samples - TW | 4 | 5 | 4 | - 4 | 5 | 4. | A | 5. | 4 | .5 | 4 | 4 | 52 | | | | |
| Dist Bacti: # of samples - DW | 12 | 15 | 12 | 12 | 15 | 15 | 12 | 15 | 12 | 20 | 12 | 12 | 164 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 |
| Treated Sacti: # of EC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | . 0 |
| Dist Bacti: # of TC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 |
| Dist Bacti: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 |

Facility Flow Summary

Drinking-Water System Number:

220008131

Drinking-Water System Name:

WESTERN TRENT DRINKING WATER SYSTEM

Drinking-Water System Owner: Drinking-Water System Category: Title Holder: Municipality Large Municipal Residential

Municipal Drinking Water License:

141-102 Exp Jul 25, 2021

Period being reported:

01/2016 12/2016

Raw Water

Raw Water (Source Name)

RW1 - Palmina Well

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6784-7JDRFS

| | Manthly Flour Total | Daily Flavy | Daily Flow | Daily Flow |
|----------|---------------------|------------------|------------|----------------|
| Month | Monthly Flow Total | Daily Flow | Maximum | Peak Flow Rate |
| | (m3/month) | Average (m3/day) | (m3/day) | (L/sec) |
| Jan | 13.87 | 0.45 | 8.47 | 3.25 |
| Feb | 13.74 | 0.47 | 3.39 | 3.27 |
| Mar | 71.92 | 2.32 | 54.56 | 3.32 |
| Apr | 388.78 | 12.96 | 68.71 | 3.22 |
| May | 1086.00 | 35.03 | 113.10 | 3.29 |
| Jun | 1297.68 | 43.26 | 123.82 | 3.99 |
| Jul | 1540.94 | 49.71 | 102.89 | 3.24 |
| Aug | 1621.54 | 52.31 | 139.90 | 3.21 |
| Sep | 719.31 | 23.98 | 61.53 | 3.02 |
| Oct | 716.14 | 23.10 | 59.65 | 3.04 |
| Nov | 674.10 | 22.47 | 54.26 | 3.01 |
| Dec | 830.88 | 26.80 | 56.33 | 3.01 |
| Total | 8974.90 | | | |
| Avg | 747.91 | | | |
| Max | 1621.54 | | 139.90 | 3.99 |
| Criteria | | | 392.00 | 3.41 |

Facility Flow Summary

Drinking-Water System Number:

220008131

Drinking-Water System Name:

WESTERN TRENT DRINKING WATER SYSTEM

12/2016

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-102 Exp Jul 25, 2021

Period being reported:

01/2016

Raw Water

Raw Water (Source Name)

RW2 - Western Trent Well

Source Type:

Drilled

Drinking Water Permit to Take Water No:

7211-7JCMRV

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|
| Jan | 1425.74 | 45.99 | 77.26 | 3.38 |
| Feb | 1291.09 | 44.52 | 79.87 | 3.32 |
| Mar | 1429.74 | 46.12 | 83.98 | 3.53 |
| Apr | 1147.18 | 38.24 | 88.53 | 3.46 |
| Мау | 1038.79 | 33.51 | 96.96 | 3.47 |
| Jun | 1306.02 | 43.53 | 116.16 | 4.00 |
| lut | 1670.47 | 53.89 | 162.11 | 3.62 |
| Aug | 1737.56 | 56.05 | 122.75 | 3.25 |
| Sep | 1244.50 | 41.48 | 95.67 | 3.78 |
| Oct | 1035.50 | 33.40 | 89.43 | 3.51 |
| Nov | 812.05 | 27.07 | 55.98 | 3.14 |
| Dec | 881.83 | 28.45 | 73.31 | 3.03 |
| Total | 15020.47 | | | |
| Avg | 1251.71 | | | |
| Max | 1737.56 | | 162.11 | 4.00 |
| Criteria | | | 392.00 | 4.55 |

Ontario Clean Water Agency Time Series Info Report

From: 01/01/2016 to 31/12/2016

Facility Org Number:

1281

Facility Works Number:

220008131

Facility Name:

WESTERN TRENT DRINKING WATER SYSTEM

Facility Owner:

Municipality: City of Kawartha Lakes

Facility Classification:

Class 1 Water Treatment

Service Population:

294.0

Total Design Capacity:

294.0 m3/day

| | 01/2016 | 02/2016 | 03/2016 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | Avg | Max |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|
| RW1 - Palmina Well / Flow Rate - Vs | | | | | | | | | | | | | | |
| Max OL | 3.25 | 3.27 | 3.32 | 3.22 | 3.29 | 3.99 | 3.24 | 3.21 | 3.02 | 3.04 | 3.01 | 3.01 | | 3.99 |
| Mean OL | 0.01 | 0.01 | 0.03 | 0.15 | 0.40 | 0.54 | 0.57 | 0,60 | 0.29 | 0.27 | 0,26 | 0.31 | 0.29 | |
| RW2 - Western Trent Well / Flow Rate - Vs | | | | | | | | | | | | | | |
| Max OL | 3.38 | 3.32 | 3.53 | 3.46 | 3.47 | 4.00 | 3.62 | 3.25 | 3.78 | 3.51 | 3.14 | 3.03 | | 4.00 |
| Mean OL | 0.53 | 0.52 | 0.54 | 0.44 | 0.39 | 0.51 | 0.62 | 0.65 | 0.48 | 0.39 | 0.31 | 0.34 | 0.48 | |



February 16, 2017

Ms. Helena Milchin-Raposo Contract Coordinator, Water & Wastewater City of Kawartha Lakes 12 Peel St., P.O Box 9000 Lindsay, ON K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Woodfield DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Woodfield DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Brent A Martin
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
bmartin@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Woodfield DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Woodfield DWS is categorized as a Small Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the Municipal Act, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|--|---|--|---|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | Low chlorine and low pressure. | 2016/05/17 — 2016/05/20 | Correct chemical pump problem. Restore pressure and chlorine residual. Boil water advisory issued. Samples collected. | Complete |
| Drinking Water Works Permit 141-216 | No failures to report | | | |
| Municipal Drinking Water Licence 141-116 | No failures to report | 1 | | |
| Permit to Take Water 6354- 8B3KUJ | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

The 2016 Compliance Inspection occurred on April 26, 2016. No failures were identified.

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Woodfield DWS which contains all required flow information.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End

Onlario Clean Water Agency Performance Assessment Report Water

From:

01/01/2016 to 31/12/2016

Report extracted 02/15/2017 12:27
Facility: [6661] WOODFIELD DRINKING WATER SYSTEM
Works: [6651] WOODFIELD DRINKING WATER SYSTEM

| | 01/2016 | 02/2015 | 03/2018 | 04/2016 | 05/2016 | 06/2016 | 07/2016 | 06/2016 | 09/2016 | 10/2016 | 11/2016 | 12/2016 | <-Total-> | <-Avg -> | 4-Max -> | e-Min-> |
|---|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|-----------|-----------------------|----------|---------------|
| Flows: | | | | | | | | | | | | | | | | |
| Raw Flow: Monthly Total - RW1 (m²) | 261.07 | 239.9 | 247,66 | 251.99 | 443.95 | 488 | 476 | 374 | 278.1 | 254.42 | 232.72 | 236 | 3783.8 | | | |
| Raw Flow: Monthly Total - RW2 (m²) | 246.6 | 222.25 | 233.2 | 238.2 | 336.01 | 334 | 339 | 299 | 253.32 | 240 | 220.38 | 218 | 3180.16 | | | |
| Raw Flow: Monthly Avg - RW1 (m*id) | 8.42 | 8.27 | 7.99 | 8.4 | 1432 | 16.27 | 15.35 | 12.05 | 9.27 | 821 | 7.76 | 7.61 | | 10.33 | | 1 |
| Raw Flow: Monthly Avg - RW2 (m*ld) | 7.96 | 7.66 | 7.52 | 7.94 | 10.84 | 11.13 | 10.94 | 9.65 | 8.44 | 7.74 | 7.35 | 7.03 | | 8.68 | | |
| Raw Flow: Monthly Max - RWS (mNd) | 11.35 | 13.33 | 11 36 | 12 | 31.95 | 37 | 29 | 19 | 25 | 14 | 10 | 17 | | | 37 | 1 |
| Raw Flow: Monthly Max - RW2 (m ⁴ /d) | 10.08 | 10.96 | 10.44 | 10 | 16.01 | 17 | 18 | 14 | 14 | 12 | 9 | 12 | | | 18 | 1 2 1 1 1 1 1 |
| Treated Flow: Monthly Total - TW (m²) | 541.96 | 499.12 | 521.56 | 521.67 | 856 37 | 905 | 902 | 745 | 548 | 522.24 | 472.09 | 501 | 7536.21 | | | |
| Treated Flow: Monthly Avg - TW (m1d) | 17.48 | 17.21 | 16.62 | 17.4 | 27.62 | 30.17 | 29.1 | 24.03 | 18.27 | 16.85 | 15.74 | 16.16 | | 20 57 | | |
| Treated Flow: Monthly Max - TW (m*/d) | 23.12 | 26.56 | 23.9 | 25 | 53.37 | 80 | 49 | 33 | 42 | 29 | - 21 | 32 | | | 60 | 1 |
| Raw Flow: Monthly Total - RW total raw (m²) | 506.84 | 495.73 | 483.85 | 478.77 | 776.26 | 821.86 | 814.25 | 668.27 | 532.36 | 499.92 | 449.82 | 526.48 | 7024.4 | | | |
| Raw Flow: Monthly Avg - RW total raw (m1/d) | 16:35 | 16.06 | 15.61 | 15.96 | 25.04 | 27 4 | 25.27 | 21.56 | 17.75 | 16.13 | 1499 | 16 98 | | 19.17 | | |
| Raw Flow: Monthly Max - RW total raw (m*/d) | 21.43 | 24.29 | 21 97 | 22 33 | 47.96 | 53.94 | 43.6 | 29.67 | 37.63 | 25.92 | 1936 | 89.39 | | | 89.39 | |
| Turbidity: | | 1 | | | 1 | | | 1 | 37/100 | | | | _ | | 100000 | |
| Raw: Max Turbidity - RW1 (VTU) | 0.33 | 0.44 | 0.5 | 0.27 | 0.31 | 0.34 | 0.29 | 0.27 | 0.49 | 035 | 0.35 | 0.43 | _ | | 0.5 | 1000 |
| Raw: Max Turbidity - RW2 (NTU) | 0.29 | 0.6 | 0.56 | 0.35 | 0.25 | 0.27 | 0.33 | 0.3 | 0.55 | 0.42 | 0.39 | 0.27 | | | 0.6 | 1 |
| Treated: Min Turbidity - TW (NTU) | 01 | 0.1 | 0.1 | 0.1 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.1 | 0.089 | 0.089 | | 1 | 1 | 0.089 |
| Treated: Max Turbidity - TW (NTU) | 0.76 | 0.16 | 0.64 | 1.71 | 2 | 2 | 0.82 | 0.28 | 0.28 | 1.366 | 0.34 | 1.21 | | 1 1 | 2 | |
| Chemical Parameters: | | | | | | | 1 | | 1 1 | 1 1 1 1 | | | | | | |
| Treated: Max Nitrite - TW (mg/L) | < 0.003 | | 1 1 | 0.003 | | _ | < 0.003 | _ | 1 | 0.003 | | | | | 0.003 | 1 |
| Treated: Max Nitrate - TW (mg/L) | 0.01 | | | 0.011 | | | 0.012 | | | 0.011 | | | | | 0.012 | |
| Distribution: Max THM - DW (µg/l) | 20 | | 1 | 19 | | | 15 | | 1 | 25 | | 1 1 | | 1 | 25 | 1 |
| Chlorine Residuals: | | | | | | | | | | 1 | | | | | V | 1 2 2 2 2 2 |
| Treated: Min Free CI2 Resid - TW (mg/L) | 2.05 | 2:27 | 2.09 | 2.1 | 0 | 1.56 | 1.66 | 1.9 | 1.43 | 1.38 | 1.7 | 2.08 | | | | 0 |
| Treated: Max Free Cl2 Resid - TW (mg/L) | 3.02 | 2.89 | 2.72 | 3.4 | 5 | 2.69 | 4 | 4.29 | 3.19 | 3.13 | 3.23 | 3.09 | | | 5 | |
| Dist: Min Free Ct2 Resid - DW (mg/L) | 1.93 | 2.17 | 1.98 | 1.98 | 1.75 | 1.79 | 1.77 | 1.97 | 1.92 | 1.6 | 1.83 | 1.77 | | 1 | | 1.6 |
| Dist: Max Free Ct2 Resid - DW (mg/L) | 2.51 | 2.66 | 2.41 | 2.38 | 2.18 | 2.47 | 2.6 | 2.36 | 2.22 | 2.12 | 2.41 | 2.45 | 5 | | 2.66 | 1 - 1 - 1 |
| Bacti Samples Collected: | | 1 100 | | | | | 1 -22 -1 | 1 | | 10000 | | | | | | |
| Raw Bacti: # of samples - RW1 | 2 | 3 | 2 | 4 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 29 | S Comment of the last | | 12000 |
| Raw Bacti: # of samples - RW2 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 28 | | | |
| Dist Bacti: # of samples - DW | 4 | 5 | 4 | 5 | 9 | 5 | 3 | 5 | 4 | 5 | 4 | 74 | 57 | | | |
| Dist Bacti: # of TC exceedances - DW | 11 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Dist Bacti: # of EC exceetlances - DW | | 0 | 0 | 0 | 1 0 | 0 | 1 0 | 0 | 0 | 1 0 | 0 | 0 | 0 | | | |

Facility Flow Summary

Drinking-Water System Number:

220012251

Drinking-Water System Name:

WOODFIELD DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-116

Period being reported:

01/2016

12/2016

Raw Water

Raw Water (Source Name)

RW1

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6354-8B3KUJ

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|-------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 261.07 | 8.42 | 11.35 | 1.24 | 31 |
| Feb | 239.90 | 8.27 | 13.33 | 1.23 | 29 |
| Mar | 247.66 | 7.99 | 11.36 | 1.23 | 31 |
| Apr | 251.99 | 8.40 | 12.00 | 1.45 | 30 |
| May | 443.95 | 14.32 | 31.95 | 1.23 | 31 |
| Jun | 488.00 | 16.27 | 37.00 | 1.22 | 30 |
| Jul | 476.00 | 15.35 | 29.00 | 1.22 | 31 |
| Aug | 374.00 | 12.06 | 19.00 | 1.22 | 31 |
| Sep | 278.10 | 9.27 | 25.00 | 1.23 | 30 |
| Oct | 254.42 | 8.21 | 14.00 | 1.22 | 31 |
| Nov | 232.72 | 7.76 | 10.00 | 1.22 | 30 |
| Dec | 236.00 | 7.61 | 17.00 | 1.22 | 31 |
| Total | 3783.80 | 123.94 | 230.98 | 14.93 | 366 |
| Avg | 315.32 | 10.33 | 19.25 | 1.24 | 31 |
| Max | 488.00 | 16.27 | 37.00 | 1.45 | 31 |
| Criteria | | 130.90 | 1.51 | | |

Facility Flow Summary

Drinking-Water System Number:

220012251

Drinking-Water System Name:

WOODFIELD DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Small Municipal Residential

Municipal Drinking Water License:

141-116 Exp 8/22/2016 12/2016

Period being reported:

01/2016

Raw Water

Raw Water (Source Name)

RW2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

6354-8B3KUJ

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) | Number of Days of Water Taking |
|----------|----------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|
| Jan | 246.80 | 7.96 | 10.08 | 1.44 | 31 |
| Feb | 222.25 | 7.66 | 10.96 | 1.38 | 29 |
| Mar | 233.20 | 7.52 | 10.44 | 1.38 | 31 |
| Apr | 238.20 | 7.94 | 10.00 | 1.45 | 30 |
| May | 336.01 | 10.84 | 16.01 | 1.47 | 31 |
| Jun | 334.00 | 11.13 | 17.00 | 1.41 | 30 |
| Jul | 339.00 | 10.94 | 18.00 | 1.39 | 31 |
| Aug | 299.00 | 9.65 | 14.00 | 1.41 | 31 |
| Sep | 253.32 | 8.44 | 14.00 | 1.39 | 30 |
| Oct | 240.00 | 7.74 | 12.00 | 1.39 | 31 |
| Nov | 220.36 | 7.35 | 9.00 | 1.39 | 30 |
| Dec | 218.00 | 7.03 | 12.00 | 1.38 | 31 |
| Total | 3180.16 | 104.20 | 153.49 | 16.88 | 366 |
| Avg | 265.01 | 8.68 | 12.79 | 1.41 | 31 |
| Max | 339.00 | 11.13 | 18.00 | 1.47 | 31 |
| Criteria | | | 163.60 | 1.90 | |



February 17, 2017

Ms. Helena Milchin-Raposo
Public Works – Contract Coordinator Water/Wastewater
City of Kawartha Lakes
12 Peel St.
Lindsay, ON
K9V 3L8

Re: Summary Report - Safe Drinking Water Act - Woodville DWS

Dear Ms. Milchin-Raposo:

Attached is the 2016 Summary Report for the Woodville DWS. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Julie Mulligan
Process & Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com



SUMMARY REPORTS FOR MUNICIPALITIES

This report is a summary of water quality information for the Woodville DWS, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Woodville DWS is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the City of Kawartha Lakes.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act*, 2001, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must.

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system <u>failed to meet</u> at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|---|--|--|--|
| Safe Drinking Water Act | No failures to report | | | |
| Ontario Regulations (eg. O.Reg 170/03, O.Reg 128/04, O.Reg 903 | No failures to report | | | |
| Permit to Take Water #4263-8K5R7L | No failures to report | | | |



| Drinking Water Legislation | List the requirement(s) the system failed to meet | Specify the duration of the failure (i.e. date(s)) | Describe the measures taken to correct the failure | Status (complete or outstanding) |
|---|--|--|--|--|
| Municipal Drinking Water Licence 141-115 | The second quarter filter turbidity analyzer calibrations were completed outside the calibration window. | Second quarter of 2016 | Analyzers were calibrated and the calibration requirements on the work order were reviewed with staff. | Complete |
| Drinking Water Works Permit 141-215 | No failures to report | | | |
| Provincial Officer's Order No. | No failures to report | | | |

What else must the Report contain?

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Please find attached reports for the Woodville DWS which contains all required flow information.

Note: Well 3 is a pond makeup well and water from this well does not enter the drinking water system.

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Ontario Clean Water Agency Performance Assessment Report Water

From:

01/01/2016 to 31/12/2016

Facility: [5842] WOODVILLE DRINKING WATER SYSTEM
Works: [5842] WOODVILLE DRINKING WATER SYSTEM

| · | 01/2016 | 02/2015 | 03/2016 | 04/2016 | 09/2016 | 06/2016 | 07/2016 | 08/2016 | 09/2016 | 10/2015 | 11/2016 | 12/2016 | <total-></total-> | c-Arg -> | <-Max -> | c-Min-> | <-Criteria- |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|----------|----------|---------|-------------|
| lows: | | | | | | | | | | | | | | | | | |
| Raw Flow: Monthly Total - Well1 (m*) | 2305.95 | 2179,77 | 2416 | 2069.92 | 2529.01 | 2905.18 | 2847.21 | 2450.29 | 2191.08 | 2329.71 | 2512.76 | 2868.1 | 29804.98 | | | | |
| Raw Flow: Monthly Total - Well3 (m*) | 0 | 0 | 0 | 0 | 167,13 | 154.06 | 106,6 | 185,1 | 112.9 | 325,27 | 181,7 | 0 | 1235.76 | | | | |
| Raw Flow: Monthly Total - Well2 (m*) | 2483.76 | 2278,6 | 2514.64 | 2182,83 | 2628.71 | 3013_49 | 2899,45 | 2607_81 | 2361_2 | 2482.23 | 2785.68 | 2525.25 | 30743.65 | | | | |
| Raw Flow: Monthly Avg - Well't (m'ld) | 74,39 | 75.16 | 77.94 | 69 | 81.58 | 96.64 | 91,65 | 79,04 | 73.04 | 75.15 | 83,76 | 92.52 | | 80.85 | | | 1 190 |
| Raw Flow: Monthly Avg - Well3 (m'/d) | 0 | 0 | 0 | 0 | 5,39 | 5.14 | 3.44 | 5,97 | 3,76 | 10.59 | 6.05 | 0 | | 3.36 | | | |
| Raw Flow: Monthly Avg - Well2 (m/d) | 60,12 | 78,57 | 81,12 | 72,76 | 84,8 | 100,45 | 93,53 | 84,12 | 78,71 | 80.07 | 92.19 | 81,46 | | 83.99 | | | |
| Raw Flow: Monthly Max - Well1 (mild) | 106.48 | 113,79 | 107,19 | 98.5 | 107,97 | 179,98 | 169 | 103_03 | 100.15 | 133.4 | 130.41 | 200.6 | | | 200.6 | | 588 |
| Raw Flow: Monthly Max - Well3 (m*/d) | 0 | 0 | 0 | 0 | 28,4 | 28.3 | 18.3 | 20,6 | 19 | 19.63 | 19.21 | 0 | | | 28.3 | | 32.83 |
| Raw Flow: Monthly Max - Well2 (m'/d) | 114.63 | 114.4 | 108,76 | 102,3 | 116,07 | 197.4 | 176.26 | 106_11 | 106.56 | 135.31 | 147.92 | 150,06 | | | 197,4 | | 588 |
| Treated Flow: Monthly Total - TW (m²) | 4782.51 | 4495.97 | 5010.67 | 4331,73 | 5723.32 | 5978.69 | 5843.89 | 5139.11 | 4606.86 | 4874.11 | 5344.68 | 5442.3 | 51073.84 | | | | |
| Treated Flow: Monthly Avg - TW (m1/d) | 154.27 | 155,03 | 161.63 | 144 39 | 168.49 | 199,29 | 188.51 | 165.78 | 153,56 | 157.23 | 178.16 | 175.56 | - | 166.83 | | | |
| Treated Flow: Monthly Max - TW (m'id) | 220,1 | 228.33 | 218,04 | 202.64 | 226,29 | 363,32 | 349,34 | 211,98 | 209,34 | 271,93 | 281.97 | 286.99 | | 9 | 383.32 | | 588 |
| Raw Flow: Monthly Total - RW (m²) | 4789.71 | 4458.37 | 4930.64 | 4252.75 | 5157.72 | 5918.67 | 5746,66 | 5058,1 | 4552.28 | 4811.94 | 5278.44 | 5393.35 | 60349.63 | | | | |
| Raw Flow: Monthly Avg - RW (m*/d) | 154,51 | 153.74 | 159.05 | 141.76 | 166,38 | 197,28 | 185,38 | 163_16 | 151,74 | 155.22 | 175.95 | 173,98 | | 164.85 | | | |
| Raw Flow: Monthly Max - RW (m1/d) | 221.11 | 228.19 | 215.95 | 200.63 | 223.87 | 377.38 | 345.26 | 209.14 | 206.71 | 258.71 | 278.33 | 284.33 | | | 377.38 | | 588 |
| Turbidity: | | 1 | | - | | 1 | | | | 1-1-1-1 | | - | | | | | |
| Raw: Max Turbidity - Wellt (NTU) | 0.09 | 0.27 | 0.13 | 0.21 | 0.12 | 0.11 | 0.18 | 0.17 | 0.24 | 0.22 | 0.16 | 0,13 | | | 0.27 | | |
| Raw: Max Turbidity - Welt2 (NTU) | 0.13 | 0.57 | 0.13 | 0.13 | 0.21 | 0.05 | 0.1 | 0.12 | 0.21 | 0.2 | 0.14 | 0.14 | | - 11 | 0.57 | | |
| Filter Eff: Min Turbidity - Filt Historical (NTU) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | |
| Finer Eff; Max Turbidity - Fift Historical (NTU) | 2.00 | 2.09 | 0.39 | 2.09 | 2.09 | 2 | 2.09 | 2.00 | 2,09 | 2.00 | 0.15 | 2.09 | | | 2.09 | | 1 |
| Chemical Parameters: | | | | | | 1 | | | | 1 | | | | | | | |
| Treated: Max Nitrite - TW (mg/L) < | 0.003 | | | < 0.003 | | | < 0,003 | | | 0.003 | | | | 7 | < 0.003 | | 1 |
| Treated: Max Nitrate - TW (mg/L) | 1.8 | | | 2.02 | | | 1.96 | | | 1.98 | | | | | 2.02 | | 10 |
| Distribution: Max THM - DW (pg/l) | - 11 | | | 12 | | | 15 | | | 11 | | | | | 15 | | 100 |
| Chlorine Residuals: | | 1 | | | | 1 | | | | | | | | | | | |
| Treated: Min Free Ct2 Resid - TW (mg/L) | 1,38 | 1,64 | 1.73 | 1,71 | 1,01 | 1,78 | 1,74 | 0.79 | 1,27 | 0 | 0 | 0 | | | | 0 | |
| Treated; Max Free Ct2 Resid - TW (mg/L) | 2.94 | 3.3 | 3.6 | 5 | 2.95 | 3.32 | 2.95 | 2.71 | 2.56 | 5.23 | 3.31 | 5.01 | | | 5.23 | | |
| Dist: Min Free CI2 Resid - DW (mg/L) | 1.38 | 0.89 | 1.42 | 1.22 | 1.03 | 1,41 | 1.25 | 1.02 | 1 1 | 1.04 | 1.38 | 0.87 | | | | 0.67 | 0.05 |
| Dist: Max Free CIZ Resid - DW (mg/L) | 2.24 | 2.35 | 2.43 | 2,58 | 2.57 | 2.74 | 1,91 | 2.21 | 2.04 | 2.11 | 2.76 | 1.9 | | | 2.76 | | |
| Bacti Samples Collected: | | | 8 | | | | | | | | | | | | | | |
| Raw Bacti: # of samples - Well1 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | - 4 | 5 | 4 | 52 | | | | |
| Raw Bacti: # of samples - Well2 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 6 | 54 | 217 | | | |
| Treated Bacti: # of samples - TW | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 52 | | | | |
| Dist Bactic # of samples - DW | 12 | 15 | 12 | 12 | 15 | 12 | 12 | 15 | 12 | 12 | 15 | 12 | 156 | | | | |
| Treated Bacti: # of TC exceedances - TW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Treated Sacti: # of EC exceedances - TW | 0 | 0 | 0 1 | 0 | 0 1 | 0 | 0 1 | D | 0 | 1 0 | 0 | 0 | 0 | | | | |
| Dist Bacti: # of TC exceedances - DW | D | 0 | 0 | 0 | 0 | 0 | 0 | D | 0 | 0 | 0 | 0 | 0 | | | | |
| Dist Bactl: # of EC exceedances - DW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U | | | |

Well 1 Flow Summary

Drinking-Water System Number: 210001077

Drinking-Water System Name: WOODVILLE DRINKING WATER SYSTEM

Drinking-Water System Owner: Title Holder: Municipality
Drinking-Water System Category: Large Municipal Residential

Municipal Drinking Water License: 141-115

Period being reported: 01/2016 - 12/2016

Raw Water (Source Name) Well1
Source Type: Drilled
Drinking Water Permit to Take Water No: 4263-8K5R7L

| Month | Monthly Flow Total (m3/month) | Daily Flow | Daily Flow | Daily Flow | Daily Flow Peak Flow Rate |
|----------|----------------------------------|------------|------------|--------------|------------------------------|
| | | Average | Maximum | Average Flow | |
| | | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 2305.95 | 74.39 | 106.48 | 0.87 | 3.51 |
| Feb | 2179.77 | 75.16 | 113.79 | 0.88 | 3.60 |
| Mar | 2416.00 | 77.94 | 107.19 | 0.92 | 3.56 |
| Apr | 2069.92 | 69.00 | 98.50 | 0.82 | 3.57 |
| May | 2529.01 | 81.58 | 107.97 | 0.95 | 3.53 |
| Jun | 2905.18 | 96.84 | 179.98 | 1.13 | 3.49 |
| Jul | 2847.21 | 91.85 | 169.00 | 1.07 | 5.97 |
| Aug | 2450.29 | 79.04 | 103.03 | 0.92 | 5.55 |
| Sep | 2191.08 | 73.04 | 100.15 | 0.85 | 3.47 |
| Oct | 2329.71 | 75.15 | 133.40 | 0.89 | 3.44 |
| Nov | 2512.76 | 83.76 | 130.41 | 0.98 | 3.45 |
| Dec | 2868.10 | 92.52 | 200.80 | 1.08 | 3.70 |
| Total | 29604.98 | in a | | | |
| Avg | 2467.08 | 80.85 | | 0.95 | - |
| Max | 2905.18 | | 200.80 | ** | 5.97 |
| Criteria | , | - | 588.00 | | 6.82 |

Well 2 Flow Summary

Drinking-Water System Number:

210001077

Drinking-Water System Name:

WOODVILLE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-115

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

Well2

Source Type:

Drilled

Drinking Water Permit to Take Water No:

4263-8K5R7L

| Month | Monthly Flow Total (m3/month) | Daily Flow | Daily Flow Maximum | Daily Flow Average Flow | Daily Flow Peak Flow Rate |
|----------|----------------------------------|------------|-----------------------|----------------------------|------------------------------|
| | | Average | | | |
| | | (m3/day) | (m3/day) | Rate (L/s) | (L/sec) |
| Jan | 2483.76 | 80.12 | 114.63 | 0.93 | 3.52 |
| Feb | 2278.60 | 78.57 | 114.40 | 0.90 | 3.53 |
| Mar | 2514.64 | 81.12 | 108.76 | 0.94 | 3.58 |
| Apr | 2182.83 | 72.76 | 102.30 | 0.85 | 3.63 |
| May | 2628.71 | 84.80 | 116.07 | 0.98 | 3.54 |
| Jun | 3013.49 | 100.45 | 197.40 | 1.16 | 3.50 |
| Jul | 2899.45 | 93.53 | 176.26 | 1.09 | 6.35 |
| Aug | 2607.81 | 84.12 | 106.11 | 0.97 | 9.30 |
| Sep | 2361.20 | 78.71 | 106.56 | 0.91 | 3.37 |
| Oct | 2482.23 | 80.07 | 135.31 | 0.95 | 3.48 |
| Nov | 2765.68 | 92.19 | 147.92 | 1.07 | 3.48 |
| Dec | 2525.25 | 81.46 | 150.96 | 0.94 | 3.62 |
| Total | 30743.65 | 24 | /#. | | |
| Avg | 2561.97 | 83.99 | 7.5 | 0.97 | |
| Max | 3013.49 | 794 | 197.40 | 344 | 9.30 |
| Criteria | | | 588.00 | - | 6.82 |

Well 3 (Pond Makeup) Flow Summary

Drinking-Water System Number:

210001077

Drinking-Water System Name:

WOODVILLE DRINKING WATER SYSTEM

Drinking-Water System Owner:

Title Holder: Municipality

Drinking-Water System Category:

Large Municipal Residential

Municipal Drinking Water License:

141-115

Period being reported:

01/2016 - 12/2016

Raw Water (Source Name)

Well3

Source Type:

Drilled

Drinking Water Permit to Take Water No:

4263-8K5R7L

| | Banathh, Flaur Tatal | Daily Flow | Daily Flow Maximum (m3/day) | |
|----------|----------------------|--------------------|-----------------------------------|--|
| Month | Monthly Flow Total | Average | | |
| | (m3/month) | (m3/day) | | |
| Jan | 0.00 | 0.00 | 0.00 | |
| Feb | 0.00 | 0.00 | 0.00 | |
| Mar | 0.00 | 0.00 | 0.00 | |
| Apr | 0.00 | 0.00 | 0.00 | |
| May | 167.13 | 5.39 | 26.40 | |
| Jun | 154.06 | 5.14 | 28.30 | |
| Jul | 106.60 | 3.44 | 18.30 | |
| Aug | 185.10 | 5.97 | 20.60 | |
| Sep | 112.90 | 3.76 | 19.00 | |
| Oct | 328.27 | 10.59 | 19.63 | |
| Nov | 181.70 | 6.06 | 19.21 | |
| Dec | 0.00 | 0.00 | 0.00 | |
| Total | 1235.76 | ** | | |
| Avg | 102.98 | 3.36 | | |
| Max | 328.27 | (**); | 28.30 | |
| Criteria | | 74 0 | 32.83 | |