



February 28, 2018

Tri-County Water Board
c/o: Scott Gawley
22413 Hoskins Line
Rodney, ON N0L 2C0

Re: Requirement under the Safe Drinking Water Act for a Summary Report

Dear Mr. Gawley;

Attached is the 2017 Summary Report for the Tri-County Drinking Water System. This report is completed in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act.

This Summary Report is to be provided to the members of the Tri-County Water Board. Please ensure this distribution by March 31st, 2018.

We recently forwarded a copy of the 2017 Annual Report for the Tri-County Drinking Water System required under Section 11 of O. Reg. 170/03. 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.

Please feel free to contact me should you require any additional information regarding these reports. I can be reached at 519-768-9925.

Sincerely,

A handwritten signature in black ink that reads "Cindy Sigurdson". The signature is written in a cursive, flowing style.

Cindy Sigurdson
Safety, Process and Compliance Manager

cc. Umashree Pancholy, Process and Compliance Technician
Mike Taylor, Senior Operations Manager
Terry Bender, Acting Regional Hub Manager



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

**Annual Summary Report
For the
Tri-County Drinking Water System
2017**

Prepared for the Tri-County Water Board

By the Ontario Clean Water Agency

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SECTION 1: Overview

This summary report for the Tri-County Drinking Water System is published in accordance with Schedule 22 of Ontario's Drinking Water Systems Regulation for the reporting period of January 1, 2017 to December 31, 2017. The Tri-County Drinking Water System (DWS) is categorized as a Large Municipal Residential Drinking Water System.

The DWS is owned by the Tri-County Water Board. The system is made up of the Tri-County Water Treatment Plant, the transmission main and the West Lorne Standpipe.

The Tri-County DWS operated in accordance with the Municipal Drinking Water Licence 043-101, Drinking Water Works Permit 043-201 and Permit to Take Water 0515-8L9GX7 (Issued September 1, 2011).

This report was prepared by The Ontario Clean Water Agency on behalf of the Tri-County Water Board and must be supplied to the Tri-County Water Board by March 31st, 2018.

SECTION 2: Compliance

The Tri-County DWS was operated and maintained in such a manner that treated water supplied to the consumers serviced by the system satisfied Ontario Drinking Water Quality Standards. However, some of the regulatory requirements were not met as identified below.

There were three routine inspections conducted by the MOECC in 2017: January 31st, March 7th and December 13th. The findings of the first two inspections were combined into one inspection report dated March 30th, 2017. The third inspection was completed and finalized in the inspection report dated February 20th, 2018.

The first inspection report (dated March 30th, 2017) identified two non-compliances with regulatory requirements. The first was for a failure to take a second set of free chlorine residuals in the distribution system 48hrs after the first set. The second non-compliance was for a failure to continuously monitor for rack #2 turbidity of the filtrate water. As a result of the non-compliances the inspection received a rating of 93.8%, with 42 non-compliance rating out of 677.

The second inspection report (dated February 20th, 2018) identified three non-compliances with regulatory requirements. The first was for not providing the required information to verify that continuous analyzers were calibrated in accordance with regulatory requirements. The second was for not providing adequate details in the facility logbook to identify that the Operator-in-Training (OIT) had made contact with the Operator-in-Charge (OIC) prior to making adjustments to equipment. The third was for documentation in the facility logbook of unusual or abnormal situations without further details such as actions taken and/or conclusions drawn. As a result of the non-compliances the inspection received a rating of 94.18%, with 28 non-compliance ratings out of 481.

SECTION 3: Corrective Action

For the non-compliances identified in the first inspection report, the necessary notifications to the MOECC were provided for both non-compliances when they occurred in 2016. Training was provided to all operators of the system. This training covered the legislative requirements of O. Reg. 170/03 and the importance of reporting. A standard operating procedure was updated to provide further clarification to the requirements.

The non-compliances identified in the second inspection report have been addressed through training sessions and updates to the Standard Operating Procedures. OCWA has recently (December 2017) switched to a new workplace management system in which tracking and documentation on calibrations of continuous monitoring equipment are performed. This new system will provide the documentation necessary for the calibrations and maintenance work performed on the equipment as required by the regulations. The second and third non-compliances identified in the inspection report were in regards to logbook documentation. A training session was provided to the staff on logbook requirements as well the requirements of the OITs to document the communication with the OIC.

SECTION 4: Summary and Discussion of Quantity of Water Supplied

In accordance with Schedule 22-2(3) find a summary and discussion of the quantity of water supplied during the reporting period compared to the rated capacity specified in the MDWL, DWWP and Permit to Take Water, including monthly average and maximum daily flows.

Attached as Appendix A, find a summary of the raw flows including total, average, and maximum daily flows, and peak flow rates for the reporting period. As well, a comparison of flows to the Permit to Take Water limits is provided. The Permit to Take Water (PTTW) specifies flow rates and total water takings permitted. For the Tri-County DWS the maximum flow rate limit is 9,400L/min. The total daily water taking is 13,500m³/day. There was one PTTW exceedance on September 7th, 2017 in which the flow exceeded 9400L/min. This flow spike lasted 1 minute and 32 seconds. The overall daily taking of water was not exceeded. The Tri-County DWS is at 30% capacity for the average daily water taking limit, which is up by 5.7% from last year.

Attached as Appendix B, find a summary of treated water flows including total, average, and maximum daily flows for the reporting period. As well, a comparison of flows to the Municipal Drinking Water Licence (MDWL) rated capacities is provided. The rated capacity of the plant is 12,160m³/day of treated water as specified in the MDWL. The daily average flow for the reporting period was 3,651m³/day, which is a slight increase by 0.9% from 2016. The maximum daily flow for the reporting period was 6,259m³/day. The plant is operating at 30% of its rated capacity, this is up from 2016 by 0.3%.

The Tri-County DWS is capable of meeting its current uses for the system. It is operating at well below the limits set out in the Permit to Take Water and the design capacity for the plant.

APPENDIX A

Raw Flows for the Tri-County DWS compared to the specified limits in the Permit to Take Water. The maximum flow rate specified is 9,400L/min (156.7L/s) with a total water taking of 13,500,000L/day.

Month	Total Flow (m³)	Average Day Flow (m³/day)	% of PTTW Limit	Max Day Flow (m³/day)	% of PTTW Limit	Max Day Flow Rates (L/s)	% of PTTW Limit
January	102,413	3,304	24.5	3,956	29.3	143.2	112.6
February	96,225	3,437	25.5	4,705	34.9	155.2	84.1
March	101,770	3,283	24.3	4,273	31.6	90.8	98.5
April	107,075	3,569	26.4	5,034	37.3	138.5	97.4
May	124,812	4,026	29.8	5,223	38.7	146.2	127.6
June	143,808	4,794	35.5	6,270	46.4	145.5	127.3
July	156,077	5,035	37.3	7,651	56.7	147.5	127.2
August	151,557	4,889	36.2	6,602	48.9	134.8	127.4
September	136,253	4,542	33.6	5,998	44.4	135.6	127.2
October	121,394	3,916	29.0	4,822	35.7	130.1	127.4
November	110,934	3,698	27.4	4,884	36.2	126.8	87.0
December	124,208	4,007	29.7	5,367	39.8	136	88.4
Total	1,476,527						
Average		4,045	30.0				
Maximum				7,651	56.7	155.2	127.6

APPENDIX B

Treated flows for the Tri-County DWS compared to the specified rated capacity of 12,160m³/day in the Municipal Drinking Water Licence.

Month	Total Flow (m³)	Average Day Flow (m³/day)	% of Rated Capacity	Max Day Flow (m³/day)	% of Rated Capacity
January	96,028	3,098	25.5	3,960	32.6
February	87,684	3,132	25.8	4,107	33.8
March	95,918	3,094	25.4	3,971	32.7
April	95,614	3,187	26.2	4,619	38.0
May	111,968	3,612	29.7	4,605	37.9
June	125,952	4,198	34.5	5,421	44.6
July	137,511	4,436	36.5	6,032	49.6
August	133,122	4,294	35.3	6,259	51.5
September	121,269	4,042	33.2	4,940	40.6
October	112,099	3,616	29.7	4,488	36.9
November	104,367	3,479	28.6	4,759	39.1
December	110,942	3,579	29.4	4,626	38.0
Total	1,332,473				
Average		3,651	30.0		
Maximum				6,259	51.5