



Municipality of North Grenville

Report No.
PW-011-2020

File No.
C7-PW

Agenda Date:	June 16, 2020, Council Meeting
Subject:	Water and Wastewater Quarterly Status Report, First Quarter 2020
Attachments:	Appendix 1: Water and Wastewater Quarterly Status Report, First Quarter 2020

RECOMMENDATION

The following recommendation is provided for Council's consideration:

That Council acknowledge receipt of the Water & Wastewater Quarterly Status Report for the period of January 1, 2020 to May 31, 2020.

BACKGROUND

This report was prepared by the Water and Sewer Division of the Department of Public Works and provides Council with information pertaining to aspects of the Drinking Water System and Wastewater System from January 1, 2020 to May 31, 2020. (**Appendix 1**)

Pursuant to the *Safe Drinking Water Act* (2002), all Drinking Water Systems in Ontario are required to have a Provincially-approved Operational Plan under the Drinking Water Quality Management Standard (DWQMS). The DWQMS is comprised of 21 Elements which document how the Municipality, as the Operating Authority, will provide safe and clean drinking water while continually improving the drinking water system. The purpose of this report is to provide Council with an update on water and wastewater projects that have occurred during the reporting period. This includes updates regarding any compliance concerns and updates to the DWQMS during the reporting period.

ANALYSIS

The *Safe Drinking Water Act* (2002) requires all owners and operating authorities of municipal residential drinking water systems to have an accredited Operational Plan and a Quality Management System (QMS). The minimum requirements for the QMS are specified in the Municipal DWQMS. Element 12 (Communication) of the DWQMS has a procedure that ensures that relevant aspects of the drinking water system are communicated to the Owner (Council) at scheduled meetings. Quarterly reports of the relevant aspects of the Wastewater System are also provided to keep Council informed of the operations of the system. This report provides Council with relevant aspects of the operations of the Water and Wastewater Systems for the first quarter of 2020.

ALTERNATIVES

Under the Drinking Water Quality Management Standard (DWQMS) which is regulated by the *Safe Drinking Water Act* (2002), relevant updates on the Kemptville Drinking Water

System must be communicated to the Mayor and Council. As such, no alternatives are offered.

FINANCIAL/STAFFING IMPLICATIONS

This item has been approved in the current budget: Yes ☐ No ☐ N/A ☒

This item is within the approved budgeted amount: Yes ☐ No ☐ N/A ☒

Staffing implications, as they relate to implementing Council’s decision on this matter, are limited to the existing staff complement and applicable administrative policies as approved by Council.

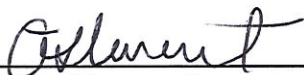
The QMS provides a framework which supports the sustainability of the Municipal Water System through proper procedures and policies. When blended with our Asset Management plan and financially self-sufficient rate structure will create a reliable well maintained water system now and into the future.

LINK TO COUNCIL WORK PLAN

Acknowledging the quarterly report will help to contribute towards the achievement of the following strategic goals:

- 1) Work Where We Live: A Quality Management System helps to ensure safe drinking water which businesses and residents alike require.
- 2) Environmental Stewardship: The Operational Plan aids in protecting our drinking source water.
- 3) Communication with our Community Members: The quarterly report provides useful information to Council regarding the Water and Wastewater systems that they own. This information may be helpful when communicating with members of the public.

Prepared by:



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Water Wastewater Compliance Coordinator

Reviewed by:



Michael Finley
Superintendent of Environmental Services

Reviewed and submitted by:




Karen Dunlop
Director of Public Works

Recommendation submitted for Council’s Consideration by:



Gary Dyke
CAO

Water & Wastewater Quarterly Status Report	
	WATER AND WASTEWATER DIVISION
Title: Water & Wastewater Status Quarterly Report	Prepared by: Ashley Stewart, Compliance Coordinator
Period Covered: January 1, 2020 – March 31, 2020	

1.0 Summary

The Kemptville Drinking Water System (DWS).

The Kemptville Water Pollution Control Plant (WPCP) had no exceedances of its Environmental Compliance Approval (ECA#9628-9Q4LRN) to report in the first quarter however there was one tertiary bypass, see [Section 4.3](#) for details.

Every quarter, the Water Wastewater Compliance Coordinator is required to submit reports to provincial and federal governing bodies. Below is a summary of the reports that were submitted in the first quarter of 2020.

Table 1: Summary of Reports Submitted to Governing Bodies

Report	Type	Coverage	Date of Submission	Governing Body
Municipal Utility Monitoring Program	Wastewater	Monthly	February 28, 2020, March 9, 2020 and April 24, 2020	MECP
Written Bypass Report	Wastewater	Incident #904016	January 15, 2020	MECP
Quarterly Bypass Report	Wastewater	Fourth Quarter 2019	February 3, 2020	MECP
Water Taking Reporting System – Kemptville Drinking Water System	Water	January 1, 2019 – December 31, 2019	March 11, 2020	MECP
2019 WPCP Performance Report	Wastewater	January 1, 2019- December 31, 2019	March 20, 2020	MECP
Effluent Regulatory Reporting Information System	Wastewater	Fourth Quarter 2019	February 14, 2020	Fisheries and Oceans Canada

2.0 Abbreviations

DWS – Drinking Water System

DWQMS – Drinking Water Quality Management Standard

ECA – Environmental Compliance Approval
HAA – Haloacetic Acids
MAC – Maximum Allowable Concentration
MECP – Ontario Ministry of the Environment Conservation and Parks
MOH – Ministry of Health
THM – Trihalomethanes
SCADA – Supervisory Control and Data Acquisition
SDWA – Safe Drinking Water Act, 2002
SPS – Sewage Pumping Station
VFD – Variable Frequency Drive
WPCP – Water Pollution Control Plant

3.0 Kemptville Drinking Water System

3.1 Maintenance (planned and unplanned)

A summary of the major maintenance undertaken in the Kemptville DWS is as follows:

All Well Sites/Water Pumping Stations

- Turbidity analyzers serviced and calibrated.
- Replaced Potassium Chloride solution in Chlorine Analyzers
- Membrane Grit replaced in all Chlorine analyzers
- Replaced Sodium Hypochlorite supply line Tee's
- Annual Automatic Transfer Switch inspections performed on all emergency generators
- Static well levels measured.
- Service pumps Variable Frequency Drive filters cleaned.

Alfred Street Well

- Service Pump #2: rebuilt pump and motor
- Replaced electrodes on Chlorine Analyzer

East Quadrant Well

- New mag meter installed to monitor chlorine flow via SCADA

Equinelle Booster Pumping Station

- Replaced reservoir water level control monitor

3.2 Project Updates

There are no project updates to report for the first quarter of 2020.

3.3 Compliance Reporting

DWQMS

The updated DWQMS 2.0, version 2.0 was presented to operational staff on January 13, 2020. Operational staff are briefed on major changes to SOP's and other guidance documents

Quarterly Sampling

The quarterly water sampling was not completed in the first quarter of 2020 due to an oversight by staff. The Water Wastewater Compliance Coordinator discovered the omission and followed the Continual Improvement Standard Operating Procedure as per Element 21 of the DWQMS Operational Plan. The MECP Water Inspector for the DWS was notified of the omission and the following proposed corrective actions: to remind operational staff to follow the electronic sampling calendar and for the compliance coordinator to create a sampling checklist to be reviewed at the end of each month. These corrective actions were accepted by the Water Inspector and the issue was closed.

4.0 Kemptville Water Pollution Control Plant

4.1 Maintenance (planned and unplanned)

Generators

The semiannual emergency generator inspections were completed.

WPCP

- QEL performed annual calibrations on methane leak detectors.
- Tertiary filter # 1 disinfected
- Replaced belt on boiler air supply fan
- Boiler # 301 low methane pressure switch replaced
- Primary Digester linear mixer now operating on a time run control
- WPCP pumps and motors serviced
- Primary digester sludge heating recirculating pump cleaned
- Floor drain pipe works replaced
- Replaced head tube on Alum chemical pump
- Methane boiler #306 heat exchanger booster pump and motor rebuilt
- Rotameters serviced on all pumps
- Fuel lines on emergency generator replaced
- Equinelle sewage pumping station
- Methane Boiler recirculating water pump and motor rebuilt
- Drip trap room air supply fan rebalanced and bearings changed
- Vibration analysis done on all crucial equipment at the WPCP

Bridge Street SPS

- bar screen components lubricated
- rag compactor auger broke, was removed for repair
- well wells cleaned

Equinelle SPS

- emergency generator battery replaced

4.2 Project UpdatesBridge Street Pump Replacement

As of March 31, 2020 the pump has arrived onsite but has not been installed. As per the Limited Operational Flexibility granted in ECA 9628-9Q4LRN a Notice of Modification to Sewage Works will be submitted to the Water Supervisor prior to the pump being installed.

4.3 Compliance ReportingTertiary Filter Bypasses

There was one tertiary bypass event in the First quarter. Details as follows:

Table 4: List of Tertiary Filter Bypasses for the First Quarter

Date	MECP Incident Number	Type	Total Volume (m3)	Cause
January 11, 2020	904016	Tertiary Filter Bypass	103.1	Heavy precipitation

A tertiary filter bypass is when the water receives primary (large solids), secondary (biological), and UV (disinfection) treatment but does not receive treatment from the tertiary sand filters (polishing) before discharging to the regular discharge outlet. This means that the wastewater did receive some level of treatment before being discharged to the Rideau River. The municipality is required under the WPCP's ECA to report any bypasses to the MECP on a quarterly basis. The report for the first quarter is required to be submitted to the ministry no later than