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**Ministry of the
Environment,
Conservation and Parks**
Eastern Region
Belleville Area Office
345 College Street East
Belleville ON K8N 5S7

**Ministère de l'Environnement,
de la Protection de la nature
et des Parcs**
Région de l'Est
Bureau du secteur de Belleville
345, rue College Est
Belleville (Ontario) K8N 5S7



April 21th, 2020

Sent by Email: cao-treasurer@tweed.ca

Gloria Raybone,
CAO, Treasurer
The Corporation of the Municipality of Tweed
255 Metcalf St, P.O Bag Delivery 729
Tweed, Ontario
K0K 3J0

Dear: Gloria Raybone

Re: 2019 Compliance Assessment – WW Tweed Lagoon

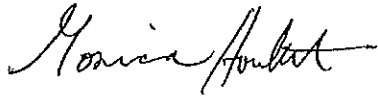
The enclosed document summarizes the state of compliance in 2019 with terms and conditions contained within Environmental Compliance Approval (ECA) no. 9608-9ZLJ2E, dated September 22, 2015.

The assessment is founded on a review of submissions to the ministry, including annual performance reports, notifications, and incident reports. Two sections of the document, namely "Non-compliance with Regulatory Requirements and Actions Required" and "Summary of Recommendations and Best Practice Issues", if found, may cite incidents of non-compliance with the ECA or non-conformance with best practices.

The compliance assessment primarily focuses on the sewage treatment works' effluent quality and adherence to its ECA established rated capacity. Incidents of bypasses and overflows within the sewage collection and treatment system may also be noted. These assessments support the preparation of the ministry's annual Environmental Compliance Report which is publicly accessible at:
<https://www.ontario.ca/data/environmental-compliance-reports>.

Annual compliance assessments will continue to be augmented by broader scoped site inspections. Should you have any questions regarding the content of the enclosed report, please do not hesitate to contact me.

Yours truly,

A handwritten signature in black ink, appearing to read "Monica Howlett". The signature is fluid and cursive, with a horizontal line extending from the end.

Monica Howlett
Water Compliance Inspector/ Provincial Officer
(613) 847-3525 (office/mobile)

Enclosure (1)

ec:

- Allan Broek, Public Works Manager, The Corporation of the Municipality of Tweed, pubwks@twp.tweed.on.ca
- Amber Coupland, Senior Operations Manager, Ontario Clean Water Agency, abevan@ocwa.com
- Natalie Iezzi, Process & Compliance Technician, Kawartha-Trent Regional Hub Ontario Clean Water Agency, nlezzi@ocwa.com

c: File SI-HA-TW-442



Ministry of the Environment, Conservation and Parks

**WW TWEED LAGOON
2019 Compliance Assessment**

Site Number:	120000952
Assessment Number:	1-NQL6P
Date of Assessment:	Apr 15, 2020
Assessed By:	Monica Howlett

OWNER INFORMATION:

Company Name:	TWEED, THE CORPORATION OF THE MUNICIPALITY OF		
Street Number:	255	Unit Identifier:	
Street Name:	METCALF St		
City:	TWEED		
Province:	ON	Postal Code:	K0K 3J0

CONTACT INFORMATION

Type:	Owner	Name:	Gloria Raybone
Phone:	(613) 478-2535	Fax:	(613) 478-6457
Email:	cao-treasurer@tweed.ca		
Title:	CAO/Treasurer		

Type:	Owner	Name:	Allan Broek
Phone:	(613) 478-2535	Fax:	(613) 478-6457
Email:	pubwks@twp.tweed.on.ca		
Title:	Public Works Manager		

Type:	Operating Authority	Name:	Amber Coupland
Phone:	(613) 472-2131	Fax:	(613) 472-6045
Email:	abevan@ocwa.com		
Title:	Sr. Operations Manager, Trent Valley Hub, OCWA		

Type:	Operating Authority	Name:	Natalie Iezzi
Phone:	(613) 962-5454 x23	Fax:	(613) 848-0611
Email:	niezzi@ocwa.com		
Title:	Process and Compliance Technician, OCWA		

ASSESSMENT DETAILS:

Site Name:	WW TWEED LAGOON
Site Address:	320 COLBORNE Street TWEED ON K0K 3J0
County/District:	TWEED
MECP District/Area Office:	Belleville Area Office
Health Unit:	HASTINGS AND PRINCE EDWARD COUNTIES HEALTH UNIT
Conservation Authority:	Quinte Conservation
MNR Office:	
Site Number:	120000952
Assessment Number:	1-NQL6P
Date of Assessment:	Apr 15, 2020
Date of Previous Inspection:	

ASSESSMENT SUMMARY:

Introduction

- This annual assessment is intended to provide a snapshot (Annual Compliance Snapshot) of a sewage work's performance for the calendar year being reviewed, and to ensure all exceedances are captured accordingly for inclusion in the Environmental Compliance Report. This assessment is based on records reported in the Annual Performance Report, or other periodic (i.e. quarterly) reports, submitted by, or on behalf of, the owner for the calendar year being reviewed.
The findings associated with this annual assessment do not suggest that all applicable legislation and regulations have been evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

The reporting period for this annual compliance assessment is the 2019 calendar year, based on the Tweed Lagoons - Annual Report for 2019 herein referred to as 'the annual report', dated March 25, 2020. The WW Tweed Lagoon is owned by the Corporation of the Municipality of Tweed and is operated by the Ontario Clean Water Agency (OCWA).

Authorizing/Control Documents

- The sewage works has an Environmental Compliance Approval.
Environmental Compliance Approval number 9608-9ZLJ2E, issued September 22, 2015 will be referred to as 'the ECA' in this compliance assessment.
- The sewage works' Environmental Compliance Approval contains current conditions.

Effluent Quality and Quantity

- The sewage works reported conformance with the design rated capacity during the reporting period.
The Tweed Lagoon has a rated capacity of 1209 m³/day (average daily flow). The average daily flow into the Tweed Lagoon for 2019 was 868.7 m³/day or 72% of the rated capacity.
- The sewage works effluent was discharged during the prescribed period.
Condition 8(1) of the ECA, in part states, spring discharge commencing not earlier than March 15 and after the liquid surface in the the lagoon has become substantially free of ice cover and terminating not later than May 7. Fall discharge commencing not earlier than November 1 and terminating not later than December 7.

The spring discharge commenced on March 26th under the cover of ice and ended May 7th. Provincial Officer's Order 1-KUJ16 was issued on March 25, 2019, requiring enhanced sampling while under the cover of ice.

The fall discharge commenced on November 1st and ended on December 19, 2019. Provincial Officer's Order 1-MONRQ was issued November 19, 2019 allowing for an extension of the discharge period till December 31, 2019, in an effort to avoid discharging under the cover of ice in the spring of 2020.
- The sewage works reported compliance with BOD₅ or CBOD₅ effluent concentration limits/criteria during the reporting year.
Condition 6(1) of the ECA provides an effluent limit for the parameter CBOD₅ as a seasonal average concentration of 25.0 mg/L. The annual report indicated the average concentration for CBOD₅ was 11.43 mg/L for the spring discharge and 4.50 mg/L for the fall discharge
- The sewage works reported conformance with effluent BOD₅ or CBOD₅ concentration and loading

Effluent Quality and Quantity

objectives during the reporting year.

Condition 5(1) of the ECA provides an effluent objective for the parameter CBOD5 as 20.0 mg/L. A review of effluent data for the spring and fall discharge showed that results for CBOD5 were below 20.0 mg/L.

- **The sewage works reported compliance with prescribed total suspended solids effluent concentration limits or criteria during the reporting year.**

Condition 6(1) of the ECA provides an effluent limit for the parameter total suspended solids (TSS) as a seasonal average concentration of 25.0 mg/L. The annual report indicated the average concentration for TSS was 13.29 mg/L for the spring discharge and 5.0 mg/L for the fall discharge.

- **The sewage works reported conformance with effluent total suspended solids concentration and loading objectives during the reporting year.**

Condition 5(1) of the ECA provides an effluent objective for the parameter TSS as a concentration of 20.0 mg/L. A review of effluent data for the spring and fall discharge showed that results for TSS were below 20.0 mg/L.

- **The sewage works reported compliance with total phosphorous effluent concentration limits or criteria during the reporting year.**

Condition 6(1) of the ECA provides an effluent limit for the parameter total phosphorus as a seasonal average concentration of 1.0 mg/L. The annual report indicated the average concentration for total phosphorus was 0.12 mg/L for the spring discharge and 0.06 mg/L for the fall discharge.

- **The sewage works reported conformance with effluent total phosphorous concentration and loading objectives during the reporting year.**

Condition 5(1) of the ECA provides an effluent objective for the parameter total phosphorus as a concentration of 0.8 mg/L. A review of effluent data for the spring and fall discharge showed that results for total phosphorus were below 0.8 mg/L.

- **The sewage works reported compliance with the effluent pH limits prescribed by the ECA during the reporting year.**

A review of the annual report for 2019 showed that the pH was maintained within the required pH range of 6.0 - 9.5 as stated in condition 6(3) of the ECA.

- **The sewage works reported conformance with the effluent pH objectives and/or guidelines during the reporting year.**

A review of the annual report for 2019 showed that the sewage works reported compliance with maintaining the pH of the effluent in the objective range of 6.5 - 8.5 as stated in condition 5(2)(a) of the ECA.

- **Effluent samples collected during this reporting period, as a condition of the Environmental Compliance Approval, did not pass acute lethality testing on the following number of occasions:**

Provincial Officer's Order 1-KUJ16 issued March 25, 2019 during the spring discharge required weekly acute lethality testing while under the cover of ice. The first two weeks of testing were acutely lethal. A sample collected March 27th provided results with 100% mean mortality to rainbow trout and a sample collected April 2nd had results with a 80% mean mortality to rainbow trout. The following three weeks of samples were not acutely lethal.

Reporting Requirements

- **The annual performance report met the submission and contents requirements of the Environmental Compliance Approval.**
- **The quarterly reports met the submission and contents requirements of the Environmental Compliance**

Reporting Requirements**Approval.**

- There were no by-passes/overflows, spills or abnormal discharge events reported for the sewage works during the review period.
- The sewage works reported that the following operating problems were encountered for the sewage works during the reporting period:

The spring discharge commenced under the cover of ice on March 26th contrary to condition 8(1) of the ECA that states that the spring discharge commencing not earlier than March 15 after the liquid surface in the lagoon has become substantially free of ice cover. Provincial Officer's Order 1-KUJ16 was issued March 25th, requiring enhanced sampling while under the cover of ice. The lagoon was substantially free of ice cover by April 15th 2019.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the assessment period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the assessment report.

Not Applicable

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

SIGNATURES

Inspected By:
Monica Howlett

Signature: (Provincial Officer)



Reviewed & Approved By:
Mahmod Mahmod

Signature: (Supervisor)



Review & Approval Date: 21/04/2020

Note: This assessment does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.



APPENDIX A
ENVIRONMENTAL COMPLIANCE APPROVAL(S)

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 9608-9ZLJ2E

Issue Date: September 22, 2015

The Corporation of the Municipality of Tweed
320 Colborne St Postal Bag 729
Tweed, Ontario
K0K 3J0

Site Location: Tweed Sewage Lagoon
Lot 12-13, Concession 10
Tweed, County of Hastings

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

The existing municipal sewage works for the collection, transmission, treatment and disposal of domestic sewage from the Municipality of Tweed, having a Rated Capacity of 1,209 m³/d and consisting of the following:

Sanitary Sewers (off-site)

- sanitary sewers on Alexander Street, Moira River Crossing and Easement, Louisa Street and Easement through Municipal Park;

Jamieson Street Pumping Station (off-site)

- a wetwell type pumping station with a 2.64 m dia wetwell located at the southeast corner of Jamieson Street and James Street, equipped with an inlet bar screen and two (2) submersible pumps, each rated at 13.3 L/s;
- a 100 mm dia 290 m long forcemain with a connection for station bypass, from the pumping station to the sanitary sewer on Louisa Street;
- an emergency overflow to Moira River;
- a continuous flow measuring device;

River Street Pumping Station (off-site)

- a wetwell/drywell type pumping station with a 2.4 m x 2.1 m wetwell, located on the extension of Louisa Street approximately 30 m south of River Street, equipped with an inlet bar screen and two

- (2) pumps, each rated at 56.8 L/s at 30 m TDH;
- a 250 mm dia 1,310 m long forcemain with a connection for station bypass, from the pumping station to the inlet distribution chamber of the waste stabilization pond;
- one (1) 18,180 L storage tank in outdoor spill containment area for phosphorus removal chemical;
- two (2) chemical metering pumps (duplex operation), each rated at 70 L/h, operating in pace with the sewage pumps and with a chemical injection point within the wetwell;
- an emergency overflow to Stoco lake;
- a 60 kW diesel generator set;
- a continuous flow measuring device for the influent to the waste stabilization pond;

Waste Stabilization Pond

- a two-celled seasonally discharged waste stabilization pond having a total surface area of approximately 129,920 m² and an operating depth of 1.8 m, complete with inlet distribution chamber and influent pipes to each cell, effluent outlet control chambers and outlet pipe for each cell to an outfall ditch/sewer discharging to the Moira River;

including all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned sewage works,

all in accordance with the submitted supporting documents listed in Schedule A.

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" means this entire document and any schedules attached to it, and the application;

"Average Daily Flow" means the cumulative total sewage flow to the sewage works during a calendar year divided by the number of days during which sewage was flowing to the sewage works that year;

"BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;

"By-pass" means diversion of sewage around one or more unit processes within the Sewage Treatment Plant with the diverted sewage flows being returned to the Sewage Treatment Plant treatment train upstream of the Final Effluent sampling location, and discharging to the environment through the Sewage Treatment Plant outfall;

"CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

"Daily Concentration" means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;

"Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;

"Emergency Situation" means a structural, mechanical or electrical failure that causes a temporary reduction in the capacity of the Sewage Treatment Plant or an unforeseen flow condition that may result in:

- a) danger to the health or safety of any person; or,
- b) injury or damage to any property, or serious risk of injury or damage to any property; or
- c) treatment process biomass washout.

"EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;

"Equivalent Equipment" means a substituted equipment or like-for-like equipment that meets the required quality and performance standards of a named equipment;

"Event" means an action or occurrence, at a given location within the Sewage Treatment Plant that causes a Plant Bypass or Plant Overflow. An Event ends when there is no recurrence of a Bypass or Overflow in the 12-hour period following the last Bypass or Overflow. Two Events are separated by at least 12 hours during which there has been no recurrence of a Bypass or Overflow;

"Final Effluent" means sewage discharge via the Sewage Treatment Plant outfall after undergoing the full train of unit processes as listed in the Approval;

"Limited Operational Flexibility" (LOF) means any modifications that the Owner is permitted to make to the Works under this Approval;

"Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

"Notice of Modifications" means the form entitled "Notice of Modifications to Sewage Works";

"Owner" means The Corporation of the Municipality of Tweed and its successors and assignees;

"OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;

"Plant Overflow" means a discharge to the environment from the Sewage Treatment Plant at a location other than the plant outfall or into the plant outfall downstream of the Final Effluent sampling location;

"Rated Capacity" means the Average Daily Flow for which the Works are approved to handle;

"Regional Water Compliance Manager" means the Regional Water Compliance Manager of the Eastern Region of the Ministry;

"Seasonal Average Concentration" means the arithmetic mean of all Daily Concentrations of a contaminant in the effluent sampled or measured, or both, during a seasonal discharge period;

"Sewage Treatment Plant" means the entire sewage treatment and effluent discharge facility;

"Water Supervisor" means the Water Compliance Supervisor for the Safe Drinking Water Branch (SDWB) for the Peterborough and Belleville offices of the Ministry; and

"Works" means the sewage works described in the Owner's application, and this Approval, and includes modifications made under Limited Operational Flexibility.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

(1) The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

(2) Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.

(3) Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.

(4) Where there is a conflict between the documents listed in the Schedule A, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(5) The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

2. CHANGE OF OWNER

(1) The Owner shall notify the Water Supervisor and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:

(a) change of Owner;

(b) change of address of the Owner;

(c) change of partners where the Owner is or at any time becomes a partnership, and a copy of the

most recent declaration filed under the Business Names Act , R.S.O. 1990, c.B17 shall be included in the notification to the Water Supervisor;

(d) change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act , R.S.O. 1990, c. C39 shall be included in the notification to the Water Supervisor;

(2) In the event of any change in ownership of the Works, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the Water Supervisor and the Director.

3. RECORD DRAWINGS

(1) A set of as-built drawings showing the works "as constructed" shall be prepared. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the Works for the operational life of the Works.

4. BY-PASSES

(1) Any By-pass or Plant Overflow is prohibited, except:

(a) in an Emergency Situation;

(b) where the By-pass / Plant Overflow is a direct and unavoidable result of a planned maintenance procedure, the Owner notified the Water Supervisor 15 days prior to the By-pass and the Water Supervisor has given written consent of the By-pass; and

(c) where the By-pass / Plant Overflow is planned for research or training purposes, the discharger notified the Water Supervisor 15 days prior to the By-pass / Plant Overflow and the Water Supervisor has given written consent of the By-pass / Plant Overflow.

(2) The Owner shall forthwith notify the Spills Action Centre (SAC) and the Medical Officer of Health of all By-pass and Plant Overflow Events. This notice shall include, at a minimum, the following information:

(a) the date, time, and duration of the Event;

(b) the location of the Event;

(c) the measured or estimated volume of the Event (unless the Event is ongoing);

(d) the reason for the Event; and

(e) the level of treatment the By-pass(es) and/or Plant Overflow(s) received and disinfection status of same.

(3) The Owner shall submit By-pass and Plant Overflow Event Reports to the Ministry's local office on a quarterly basis, no later than each of the following dates for each calendar year: February 14, May 15, August 14, and November 15. Event Reports shall be in an electronic format specified by the Ministry. In each Event Report the Owner shall include, at a minimum, the following information on any Events that occurred during the preceding quarter:

- (a) the date of the Event(s);
- (b) the measured or estimated volume of the Event(s);
- (c) the duration of the Event(s);
- (d) the location of the Event(s);
- (e) the reason for the Event(s); and
- (f) the level of treatment the By-pass(es) and/or Plant Overflow(s) received and disinfection status of same.

(4) The Owner shall use best efforts to collect a representative sample consisting of a minimum of two (2) grab samples of the By-pass / Plant Overflow and have it analyzed for parameters outlined in Condition 6, one at the beginning of the Event and the second approximately near the end of the Event, to best reflect the effluent quality of such By-pass or Plant Overflow.

(5) The Owner shall maintain a logbook of all Plant By-passes and Plant Overflows, which shall contain, at a minimum, the types of information set out in subsection 2 (a) to 2(e) in respect of each By-pass and Plant Overflow.

5. EFFLUENT OBJECTIVES

(1) The Owner shall use best efforts to design, construct and operate the Works with the objective that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Table 1 - Effluent Objectives	
Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)
CBOD5	20.0
Total Suspended Solids	20.0
Total Phosphorus	0.8

(2) The Owner shall use best efforts to:

(a) maintain the pH of the effluent from the Works within the range of 6.5 - 8.5, inclusive, at all times;

(b) operate the works within the Rated Capacity of the Works;

(c) ensure that the effluent from the Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discoloration on the receiving waters.

(3) The Owner shall include in all reports submitted in accordance with Condition 10 a summary of the efforts made and results achieved under this Condition.

6. EFFLUENT LIMITS

(1) The Owner shall operate and maintain the Works such that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Table 2 - Effluent Limits	
Effluent Parameter	Average Concentration (milligrams per litre unless otherwise indicated)
CBOD5	25.0
Total Suspended Solids	25.0
Total Phosphorus	1.0

(2) For the purposes of determining compliance with and enforcing subsection (1):

(a) The Seasonal Average Concentration of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).

(3) The Owner shall operate and maintain the Works such that the pH of the effluent is maintained within the range of 6.0 - 9.5, inclusive, at all times.

(4) Subsections (1) and (3) shall apply upon the issuance of this Approval.

7. OPERATION AND MAINTENANCE

(1) The Owner shall exercise due diligence in ensuring that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, including training in all procedures and other requirements of

this Approval and the Act and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the Works.

(2) The Owner shall prepare an operations manual that includes, but not necessarily limited to, the following information:

- (a) operating procedures for routine operation of the Works;
- (b) inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
- (c) repair and maintenance programs, including the frequency of repair and maintenance for the Works;
- (d) procedures for the inspection and calibration of monitoring equipment;
- (e) a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the Water Supervisor; and
- (f) procedures for receiving, responding and recording public complaints, including recording any followup actions taken.

(3) The Owner shall maintain the operations manual current and retain a copy at the location of the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.

(4) The Owner shall provide for the overall operation of the Works with an operator who holds a licence that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 129/04.

8 SPECIAL OPERATIONS - SEASONAL DISCHARGE

(1) The Owner shall operate the Works such that discharge is conducted on a semi-annual discharge basis with the effluent being discharged in the spring and the fall as follows:

spring: discharge commencing not earlier than March 15 after the liquid surface in the lagoon has become substantially free of ice cover and terminating not later than May 7 and using reasonable efforts to maximize the discharge rate to coincide with the spring freshet and elevated flows in the receiver, and

fall: discharge commencing not earlier than November 1 and terminating not later than December 7.

9. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the Works, carry out the following monitoring program:

(1) All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

(2) For the purposes of this condition, the following definitions apply:

- (a) Five (5) times during each seasonal discharge period means at the beginning of the discharge, at 25%, 50% and 75% drawdown and at the end of the discharge;
- (b) Quarterly means once every three months.

(3) Samples shall be collected at the following sampling points, at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 3 - Influent Monitoring - Influent Chamber	
Frequency	Quarterly
Sample Type	Grab
Parameters	BOD5, Total Suspended Solids, Total Phosphorus, Total Kjeldahl Nitrogen

Table 4 - Lagoon Content Monitoring - (One sample from each Cell)	
Frequency	Once at least seven (7) days prior to scheduled seasonal discharge
Sample Type	Grab
Parameters	CBOD5, Total Suspended Solids, Total Phosphorus, Hydrogen Sulphide

Table 5 - Effluent Monitoring - Outfall	
Frequency	Five (5) times during each discharge period
Sample Type	Grab
Parameters	CBOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Hydrogen Sulphide, pH, Temperature, <i>E. coli</i>

Table 6 - Effluent Monitoring - Outfall	
Frequency	Once at the start of each discharge period
Sample Type	Grab
Parameters	Acute Lethality to Rainbow Trout and <i>Daphnia magna</i>

(4) The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

(a) the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended from time to time by more recently published editions;

(b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

(c) the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions; and

(d) the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (EPS 1/RM/13 Second Edition - December 2000) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Daphnia magna" (EPS 1/RM/14 Second Edition - December 2000), as amended from time to time by more recently published editions;

(5) the use of pH stabilization in the determination of acute lethality of municipal sewage effluents to rainbow trout in accordance with the Environment Canada publication "Procedure for pH Stabilization during the Testing of Acute Lethality of Wastewater Effluent to Rainbow Trout (EPS 1/RM/50)" (2008) as amended from time to time by more recently published editions, is permitted only if:

(a) all the three criteria stipulated in the Environment Canada EPS 1/RM/50 are met; and

(b) the effluent is not discharged to a receiver in which the effluent contributes more than 50% of the total flow in the receiving water, unless the Water Supervisor, having reviewed additional information submitted regarding the effluent and the receiving water approves on the use of RM50 on a site-specific basis.

(6) The temperature and pH of the effluent from the Works shall be determined in the field at the time of sampling for Total Ammonia Nitrogen. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

(7) If the effluent sample collected at the start of a discharge period indicates acute lethality to Rainbow Trout or Daphnia magna, the Owner shall collect a second sample near the end of the discharge period and test for acute lethality to Rainbow Trout or Daphnia magna again. If both samples indicate acute lethality to Rainbow Trout or Daphnia magna, the Owner shall carry out the following:

(a) review the following and determine whether the observed is associated with ammonia or

other cause or source:

- (i) plant operations around the time of the toxicity event; and
- (ii) all data available regarding plant operations and effluent quality.

b) Upon determination of cause or source of acute lethality to rainbow trout and *Daphnia magna*, the Owner shall determine appropriate control measures to achieve non-acutely lethal effluent and time lines for the implementation of identified control measures. The Owner shall submit the proposed control measures and implementation time lines for approval to the Water Supervisor.

(8) The Owner shall maintain (a) continuous flow measuring device(s), to measure the flowrate of the influent to the Works with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flowrate for the entire design range of the flow measuring device, and record the flowrate at a daily frequency.

(9) The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

10. REPORTING

(1) Fifteen (15) days prior to the date of a planned By-pass being conducted pursuant to Condition 4 and as soon as possible for an unplanned By-pass, the Owner shall notify the Water Supervisor (in writing) of the pending start date, in addition to an assessment of the potential adverse effects on the environment and the duration of the By-pass.

(2) The Owner shall report to the Water Supervisor or designate, any exceedence of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedence.

(3) In addition to the obligations under Part X of the *Environmental Protection Act*, the Owner shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the Water Supervisor describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

(4) The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

(5) The Owner shall prepare and submit a performance report to the Water Supervisor on an annual basis, within ninety (90) days following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

- (a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 6, including an overview of the success and adequacy of the Works;
- (b) a description of any operating problems encountered and corrective actions taken;
- (c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
- (d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment; and
- (f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5.
- (g) a tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;
- (h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (i) a summary of all By-pass, spill or abnormal discharge events;
- (j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;
- (k) a report summarizing all modifications completed as a result of Schedule B, Section 3; and
- (l) any other information the Water Supervisor requires from time to time.

(6) The Owner shall, within thirty (30) calendar days of issuance of this Approval, submit a Municipal and Local Services Board Wastewater System Profile Information Form, and shall resubmit the updated document every time a notification is provided to the Water Supervisor in compliance with requirements of change of ownership under this Approval.

11. LIMITED OPERATIONAL FLEXIBILITY

(1) The Owner may make modifications to the Works in accordance with the Terms and Conditions of this Approval and subject to the Ministry's "Limited Operational Flexibility Criteria for Modifications to Sewage Works ", included under Schedule B of this Approval, as amended.

(2) Sewage works proposed under Limited Operational Flexibility shall adhere to the design guidelines

contained within the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended.

(3) The Owner shall ensure at all times, that the Works, related equipment and appurtenances which are installed or used to achieve compliance are operated in accordance with all Terms and Conditions of this Approval.

(4) For greater certainty, the following are not permitted as part of Limited Operational Flexibility:

(a) Modifications to the Works that result in an increase of the Rated Capacity of the Works;

(b) Modifications to the Works that may adversely affect the approved effluent quality criteria or the location of the discharge/outfall;

(c) Modifications to the treatment process technology of the Works, or modifications that involve construction of new reactors (tanks) or alter the treatment train process design;

(d) Modifications to the Works approved under s.9 of the EPA, and

(e) Modifications to the Works pursuant to an order issued by the Ministry.

(5) Implementation of Limited Operational Flexibility is not intended to be used for piecemeal measures that result in major alterations or expansions.

(6) If the implementation of Limited Operational Flexibility requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan, the Owner shall, as deemed necessary in consultation with the Water Supervisor, provide a revised copy of this plan for approval to the local fire services authority prior to implementing Limited Operational Flexibility.

(7) For greater certainty, any modification made under the Limited Operational Flexibility may only be carried out after other legal obligations have been complied with, including those arising from the *Environmental Protection Act*, *Niagara Escarpment Planning and Development Act*, *Oak Ridges Moraine Conservation Act*, *Lake Simcoe Protection Act* and *Greenbelt Act*.

(8) Prior to implementing Limited Operational Flexibility, the Owner shall complete a Notice of Modifications describing any proposed modifications to the Works and submit it to the Water Supervisor.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the Owners their responsibility to notify any person they authorized to carry out work pursuant to this Approval the existence of this Approval.

2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to the approved works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
3. Condition 3 is included to ensure that the Works are constructed in accordance with the approval and that record drawings of the Works “as constructed” are maintained for future references.
4. Condition 4 is included to indicate that By-pass / Plant Overflows of untreated or partially treated sewage to the receiving watercourse is prohibited, save in certain limited circumstances where the failure to By-pass / Plant Overflow could result in greater injury to the public interest than the Bypass itself where a By-pass / Plant Overflow will not violate the approved effluent requirements, or where the By-pass / Plant Overflow can be limited or otherwise mitigated by handling it in accordance with an approved contingency plan. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of By-pass / Plant Overflow events.
5. Condition 5 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 6 are exceeded.
6. Condition 6 is imposed to ensure that the effluent discharged from the Works to the Moira River meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver and to protect water quality, fish and other aquatic life in the receiving water body.
7. Condition 7 is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner and made available to the Ministry. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.
8. Condition 8 is included to ensure that the treated effluent is discharged to the receiver during periods and at rates that minimizes the environmental impact on the receiver.
9. Condition 9 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and effluent limits specified in the Approval and that the Works does not cause any impairment to the receiving watercourse.

10. Condition 10 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.
11. Condition 11 is included to ensure that the Works are operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider. These Conditions are also included to ensure that a Professional Engineer has reviewed the proposed modifications and attests that the modifications are in line with that of Limited Operational Flexibility, and provide assurance that the proposed modifications comply with the Ministry's requirements stipulated in the Terms and Conditions of this Approval, MOE policies, guidelines, and industry engineering standards and best management practices.

Schedule A

1. Final plans and specifications prepared by Oliver Lloyd and Associates Limited for the sewage works approved in 1974;
2. Application for Approval of Municipal and Private Sewage Works including design brief, plans and specifications prepared by D.M. Wills Associated Ltd. and RAL Engineering Ltd., for the inline phosphorus removal coagulant application system at River Street Pumping Station;
3. Environmental Compliance Approval Application submitted by Tony Guerrero, P. Eng. of The Greer Galloway Group Inc. dated January 25, 2012 including Design Report for the coagulant system upgrades at the River Street Pumping Station.

Schedule B

Limited Operational Flexibility Criteria for Modifications to Municipal Sewage Works

1. The modifications to sewage works approved under an Environmental Compliance Approval (Approval) that are permitted under the Limited Operational Flexibility (LOF), are outlined below and are subject to the LOF conditions in the Approval, and require the submission of the Notice of Modifications. If there is a conflict between the sewage works listed below and the Terms and Conditions in the Approval, the Terms and Conditions in the Approval shall take precedence.

1.1 Sewage Pumping Stations

- a. Alter pumping capacity by adding or replacing equipment where new equipment is located within an existing sewage treatment plant site or an existing sewage pumping station site, provided that the modifications do not result in an increase of the sewage treatment plant Rated Capacity and the existing flow process and/or treatment train are maintained, as applicable.
- b. Forcemain relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200mm

1.2 Sewage Treatment Process

- a. Installing additional chemical dosage equipment including replacing with alternative chemicals for pH adjustment or coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.
- b. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.
- c. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations provided that existing sewage treatment plant rated capacity is not exceeded and where no land acquisition is required.
- d. Optimizing existing sewage treatment plant equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the works that result in an increase of the approved Rated Capacity, and may have adverse effects to the effluent quality or location of the discharge.
- e. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of

equipment is kept the same or exceeded. For clarity purposes, the following equipment can be considered under this provision: pumps, screens, grit separators, blowers, aeration equipment, sludge thickeners, dewatering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

1.3 Sewage Treatment Plant Outfall

- a. Replacement of discharge pipe with similar pipe size or diffusers provided that the outfall location is not changed.

1.4 Sanitary Sewers

- a. Pipe relining and replacement with similar pipe size within the Sewage Treatment Plant site, where the nominal diameter is not greater than 1,200mm.

1.5 Pilot Systems

- a. Installation of pilot systems for new or existing technologies provided that:
 - i. any effluent from the pilot system is discharged to the inlet of the sewage treatment plant or hauled off-site for proper disposal,
 - ii. any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and
 - iii. the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and Water Supervisor three months after completion of the pilot project.
2. Sewage works that are exempt from section 53 of the OWRA by O. Reg. 525/98 continue to be exempt and are not required to follow the notification process under this Limited Operational Flexibility.
3. Normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning, renovations to existing approved sewage works equipment, provided that the modification is made with Equivalent Equipment, are considered pre-approved.
4. The modifications noted in section (3) above are not required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change.



Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA AND SEND A COPY TO THE WATER SUPERVISOR (FOR MUNICIPAL) OR DISTRICT MANAGER (FOR NON-MUNICIPAL SYSTEMS)

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility <i>(Insert the ECA's owner, number and issuance date and police number, which should start with "01" and consecutive numbers thereafter)</i>		
ECA Number	Issuance Date (mm/dd/yy)	Police number (if applicable)
ECA Owner		Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility <i>(Attach a detailed description of the sewage works)</i>
<p>Description shall include:</p> <ol style="list-style-type: none"> A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.) Confirmation that the anticipated environmental effects are negligible. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)

Part 3 – Declaration by Professional Engineer	
<p>I hereby declare that I have verified the scope and technical aspects of the modification and confirm that the design:</p> <ol style="list-style-type: none"> Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario; Has been designed in accordance with the Limited Operational Flexibility as described in the ECA; Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.63 of the Ontario Water Resources Act; and other appropriate regulations. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate.</p>	
Name (Print)	PEO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

Part 4 – Declaration by Owner	
<p>I hereby declare that:</p> <ol style="list-style-type: none"> I am authorized by the Owner to complete this Declaration; The Owner consents to the modification; and This modification to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA. The Owner has fulfilled all applicable requirements of the <i>Environmental Assessment Act</i>. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate.</p>	
Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s), 2-0274-69-741526, 7382-8TBLBB issued on August 20, 1974, April 25, 2012.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

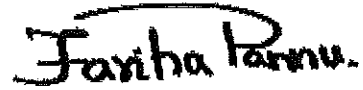
AND

The Director appointed for the purposes of Part II.1 of
the Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 22nd day of September, 2015



Fariha Pannu, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

FL/

c: Area Manager, MOECC Belleville

c: DWMD Supervisor, MOECC Belleville

Rekha Chetlur, Registration and Compliance Section, MOECC Drinking Water Programs Branch – IMBS

APPENDIX B
STAKEHOLDER SUPPORT

Helpful Resources for Municipal Wastewater Owners and Operators

Many useful materials are available to help you operate your wastewater system. Below is a list of key materials owners and operators of municipal wastewater systems frequently use. To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at:

1-866-793-2588 or
AskMECPWastewaterCompliance@ontario.ca.

For more information on wastewater visit
www.ontario.ca/page/wastewater-operators-training-and-licences



PUBLICATION TITLE	PUBLICATION NUMBER
Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater	Website
Guide to Applying for an Environmental Compliance Approval	Website
Environmental Registration – Standby Power Systems Fact Sheet	8544E
F-5-1 Determination of Treatment Requirements for Municipal and Private Sewage Treatment Works Discharging to Surface Waters	Website
F-8 Provision And Operation Of Phosphorus Removal Facilities At Municipal, Institutional And Private Sewage Treatment Works	Website
F-10-1 Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)	Website
Water Management, Policies, Guidelines: Provincial Water Quality Objectives	Website
Licensing Guide for Operators of Wastewater Treatment Facilities	Website