AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 0556-AKQN3Q
Issue Date: May 30, 2017

The Corporation of the Town of Saugeen Shores
600 Tomlinson Dr, No. P.O. Box 820
Saugeen Shores, Ontario
N0H 2C0

Site Location: Port Elgin Water Pollution Control Plant (WPCP)
123 Lehnen Street, Part of Block A
Lot 11, Concession 9, Saugeen Shores
Saugeen Shores Town, County of Bruce
N0H 2C0

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:

municipal sewage works under Section 53 of OWRA for the treatment of sanitary sewage and disposal of effluent to Mill Creek via a Sewage Treatment Plant (Port Elgin WPCP) as follows:

Rated Capacity of Sewage Treatment Plant: 6,455 m^3/d;

Proposed Works

Final Effluent Outfall

- a 450 mm diameter sewer from the existing MH 2 discharging to a new MH 6;
- a 525 mm diameter outfall sewer from MH 6 discharging to a 13 m long rip rap outfall channel to Mill Creek;
- a 525 mm diameter relief sewer from MH A to rip rap outfall channel;

Previous Works

Influent Sewers

- a 450 mm diameter influent sewer from inlet works to aeration distribution chamber;

Influent Flow Measurement and Sampling Point

- flow measurement device downstream of pumping station;
- operators manually grabs influent sample before aeration tanks;

Imported Sewage Receiving Station

- one (1) septage receiving station (inlet chamber) equipped with a septage sampling basin and a sump to settle out gravel and sand, discharging to septage pumping station;
- two (2) 24 m^3 below grade septage storage tanks connected to the septage pumping station wet well through a 200 mm diameter pipe equipped with a valve;
- one (1) 2.4 m diameter septage pumping station equipped with two (2) pumps (one standby), each rated at 10 L/s at 10.5 m TDH, conveying septage through a 100 mm diameter forcemain to Preliminary Treatment System;

Preliminary Treatment System

Screening

- a 1,016 mm wide x 1,900 mm deep channel equipped with one (1) mechanically-cleaned fine screen with 3 mm screen size, with a Peak Instantaneous Flow Rate of 443 L/s, discharging to grit removal tank;
- one (1) screw washer compactor;

Grit Removal

- one (1) 3.5 m diameter x 4 m deep grit removal tank, with a Peak Hourly Flow Rate of 1559 m^3/h, equipped with an agitator;
- one (1) grit transfer pump, rated at 12.5 L/s;
- one (1) grit classifier discharging to grit bin and recirculating wash water back to the Preliminary Treatment System;
- one (1) 1.8 m x 1.4 m x 1.2 m grit storage bin;

Secondary Treatment System (Peak Hourly Flow Rate 659 m^3/h (15,815 m^3/d))

Biological Treatment

- two (2) 30 m x 15 m x 4.25 m side water depth (SWD) aeration tanks, equipped with fine bubble aeration system;

- four (4) blowers (two standby), one (1) rated at 472 - 850 L/s at 45 kPa equipped with variable frequency drive (VFD) is duty for the aeration tanks, one (1) rated at 236 - 614 L/s at 45 kPa equipped with VFD is duty for the digester aeration system, and two backups rated at 550 L/s at 45 kPa;

Secondary Sedimentation

- two (2) 21.25 m diameter x 3.6 m SWD secondary clarifiers, equipped with sludge and scum removal mechanisms;
- two (2) return activated sludge (RAS)/waste activated sludge (WAS) pumps (one standby), each rated at 148 L/s at 9 m TDH;

Supplementary Treatment

Phosphorus Removal System

- one 25,000 L chemical storage tank;
- two (2) chemical metering pumps (one standby), each rated at 144 L/h;

UV Disinfection System

- one (1) UV disinfection system with a Peak Hourly Flow Rate of 659 m^3/h, comprising three (3) banks, each with nine (9) modules with eight (8) lamps per module;

Final Effluent Flow Measurement and Sampling Point

- flow measurement device at effluent channel from the UV disinfection system;
- an automatic composite sampler at outlet of UV disinfection system;

Final Effluent Outfall

- a 600 mm diameter outfall sewer from the outlet of the UV disinfection channel discharging to MH 2;
- a 400 mm diameter outfall sewer from MH 2 discharging to Mill Creek (to be decommissioned);

Sludge Management

Sludge Stabilization and Storage

- a two-stage aerobic digestion facility consisting of one (1) 8.4 m x 8.0 m x 4.0 m SWD first stage tank and one (1) 8.4 m x 4.0 m x 4.0 m SWD second stage tank, equipped with supernatant decant arm and coarse bubble aeration system;
- one (1) digested sludge storage tank consisting of two (2) compartments, each 35 m x 12 m x 4.0 m SWD, equipped with supernatant decant arm and coarse bubble aeration system;
- three (3) air blowers, one (1) rated at 236 - 614 L/s at 45 kPa equipped with a VFD and two

rated at 628 L/s at 40 kPa;
- three (3) sludge transfer pumps, each rated at 17.5 L/s at 7.5 m TDH;

Standby Power

- one (1) 250 kW standby diesel generator set with one (1) 2,270 L fuel tank in spill containment area;

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:

1. "Annual Average Daily Influent Flow" means the cumulative total sewage flow of Influent and Imported Sewage to the Sewage Treatment Plant during a calendar year divided by the number of days during which sewage was flowing to the Sewage Treatment Plant that year;

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

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

4. "Bypass" 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 point, and discharging to the environment through the approved Final Effluent outfall;

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

6. "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;

7. "*E. coli* " refers to the thermally tolerant forms of Escherichia that can survive at 44.5 degrees Celsius;

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

9. "Equivalent Equipment" means an alternate equipment set that meets the design requirements and performance specifications of an equipment set to be substituted;

10. "Event" means an action or occurrence, at a given location within the Works that causes a Bypass or Overflow. An Event ends when there is no recurrence of Bypass or Overflow in the 12-hour period following the last Bypass or Overflow. Overflows and Bypasses are separate Events even when they occur

concurrently;

11. "Final Effluent" means effluent that are discharged to the environment through the approved Final Effluent outfall, including all Bypasses, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point;

12. "Geometric Mean Density" is the nth root of the product of n numerical Single Sample Results over the period specified;

13. "Imported Sewage" means sanitary sewage, leachate, septage, processed organics hauled to the Sewage Treatment Plant by licensed waste management system operators and at the specific characteristics and quantities approved for co-treatment in the Sewage Treatment Plant;

14. "Influent" means flows to the Sewage Treatment Plant through the collection system, excluding all Imported Sewage and process return flows;

15. "Limited Operational Flexibility" (LOF) means the protocol under which the Owner shall follow in order to undertake any modification that is pre-approved in this Approval;

16. "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;

17. "Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month;

18. "Monthly Average Daily Effluent Flow" means the cumulative total Final Effluent discharged during a calendar month divided by the number of days during which Final Effluent was discharged that month;

19. "Monthly Average Daily Effluent Loading" means the value obtained by multiplying the Monthly Average Effluent Concentration of a contaminant by the Monthly Average Daily Effluent Flow over the same calendar month;

20. "Overflow" means a discharge to the environment from the Works at a location other than the approved Final Effluent outfall or into the outfall downstream of the Final Effluent sampling point;

21. "Owner" means The Corporation of the Town of Saugeen Shores and its successors and assignees;

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

23. "Peak Daily Flow Rate" (also referred to as maximum daily flow or maximum day flow) means the largest volume of flow to be received during a one-day period for which the sewage treatment process unit or equipment is designed to handle;

24. "Peak Hourly Flow Rate" (also referred to as maximum hourly flow or maximum hour flow) means the largest volume of flow to be received during a one-hour period for which the sewage treatment process unit

or equipment is designed to handle;

25. "Peak Instantaneous Flow Rate" means the instantaneous maximum flow rate as measured by a metering device for which the sewage treatment process unit or equipment is designed to handle;

26. "Previous Works" means those portions of the Works that have been constructed previously;

27. "Proposed Works" means those portions of the Works that are to be constructed;

28. "Rated Capacity" means the Annual Average Daily Influent Flow for which the Sewage Treatment Plant is designed to handle;

29. "Sewage Treatment Plant" means the entire sewage treatment and Final Effluent outfall;

30. "Single Sample Result" means the attribute of a parameter in the Final Effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, whichever is required;

31. "Water Supervisor" means the Water Compliance Supervisor for the Safe Drinking Water Branch (SDWB) for the Owen Sound office of the Ministry; and

32. "Works" means the sewage works described in the Owner's application, and this Approval, and includes Proposed Works, Previous Works and 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 terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

(2) The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.

(3) Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

(4) This Approval is granted based upon a review of the Works in the context of its effect on the environment, its process performance and general principles of wastewater engineering. The review did not include a consideration of the architectural, mechanical, electrical or structural components and minor details of the Works except to the extent necessary to review the Works.

2. CHANGE OF OWNER

(1) 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 (obtainable from the Water Supervisor), and shall resubmit the updated document every time a notification is provided to the Water Supervisor in compliance with requirements of change of owner or operator under this condition.

(2) 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 address of Owner;

b. change of Owner, including address of new 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. B.17* , as amended, shall be included in the notification;

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. C.39* , as amended, shall be included in the notification

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

a. change of address of Operator;

b. change of Operator, including address of new Owner or operating authority.

(4) In the event of any change in ownership of the Works, 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.

(5) The Owner shall ensure that all communications made pursuant to this condition refer to the number at the top of this Approval.

3. COMPLETION OF THE PROPOSED WORKS

(1) All Proposed Works in this Approval shall be completed and commissioned within five (5) years of issuance of this Approval.

(2) One (1) week prior to commissioning of the Proposed Works, the Owner shall notify the Water Supervisor, in writing, of the pending start up date. The notification shall include a statement, certified by a Professional Engineer, that the Proposed Works are constructed in accordance with this Approval.

(3) Within one (1) year of completion of construction of the Proposed Works, a set of record drawings of the Works shall be prepared or updated. 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) In the event that completion and commissioning of any portion of the Proposed Works is anticipated to be delayed beyond five (5) years of issuance of this Approval, the Owner shall submit to the Director an application of extension to the Approval, at least twelve (12) months prior to the end of the period. The application for extension shall include the reason(s) for the delay, whether there is any design change(s) and a review whether the standards applicable at the time of Approval of the Works are still applicable at the time of request for extension, to ensure the ongoing protection of the environment.

(5) A set of record drawings of the Works 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. BYPASSES

(1) Any Bypass is prohibited, except:

a. in an emergency situation when a structural, mechanical or electrical failure that causes a temporary reduction in the capacity of the Sewage Treatment Plant or in unexpected and/or unavoidable circumstance(s) that are likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset;

b. where the Bypass is a direct and unavoidable result of a planned maintenance procedure or other circumstance(s), the Owner having notified the Water Supervisor at least fifteen (15) days prior to the occurrence of Bypass, including an assessment of the potential adverse effects on the environment and the anticipated duration of the Bypass and the mitigation measures, and the Water Supervisor has given written consent of the Bypass.

(2) For any Bypass Event, the Owner shall immediately notify the Spills Action Centre (SAC). This notice shall include, at a minimum, the following information for each Event:

a. the date and time of the Bypass;

b. the location of the Bypass and the treatment process(es) bypassed;

c. the reason(s) for the Bypass;

d. the disinfection status of the Bypass.

(3) After each Bypass Event, the Owner shall collect and record the following information:

a. the duration of the Bypass Event;

b. the measured or estimated volume of Bypass;

c. the impact of the Bypass on the quality of the Final Effluent.

(4) For any Bypass Event, the Owner shall collect sample(s) of the Final Effluent, representative of the Event, at the Final Effluent compliance sampling point, and analyze for all effluent parameters outlined in Compliance Limits condition. These samples shall be of the same type as the regular samples required in the Monitoring and Recording condition and shall follow the same protocols specified in the Monitoring and Recording condition. If the Bypass occurs within 48 hours prior to a scheduled regular sample, then the scheduled regular sample may be omitted for that one time only.

(5) The Owner shall submit a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15. The summary reports shall be in an electronic format, which shall contain, at a minimum, the types of information set out in Subsections (2), (3) and (4).

5. OVERFLOWS

(1) Any Overflow is prohibited, except

a. in an emergency situation when a structural, mechanical or electrical failure that causes a temporary reduction in the capacity of the Sewage Treatment Plant or in unexpected and/or unavoidable circumstance(s) that are likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset;

b. where the Overflow is a direct and unavoidable result of a planned maintenance procedure or other circumstance(s), the Owner having notified the Water Supervisor at least fifteen (15) days prior to the occurrence of the Overflow, including an assessment of the potential adverse effects on the environment and the anticipated duration of the Overflow and the mitigation measures, and the Water Supervisor has given written consent of the Overflow.

(2) For any Overflow Event, the Owner shall immediately notify the Spills Action Centre (SAC) and the local Medical Officer of Health. This notice shall include, at a minimum, the following information for each Event:

a. the date and time of the Overflow;

b. the location of the Overflow and the receiver;

c. the reason(s) for the Overflow;

d. the level of treatment the Overflow has received and disinfection status of same.

(3) After any Overflow Event, the Owner shall collect and record the following information:

a. the duration of the Overflow Event;

b. the measured or estimated volume of the Overflow;

c. the impact of Overflow on the receiver.

(4) For each Overflow Event, the Owner shall collect samples, representative of the Event, consisting of a minimum of two (2) grab samples of the Overflow, one at the beginning of the Event and one approximately near the end of the Event, and have them analyzed for effluent parameters outlined in Effluent Limits condition. For raw sewage and primary treated effluent Overflow, BOD5 shall be monitored instead of CBOD5.

(5) The Owner shall submit a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15. The summary report shall be in an electronic format, which shall contain, at a minimum; the types of information set out in Subsections (2), (3) and (4).

6. DESIGN OBJECTIVES

(1) The Owner shall use best efforts to design, construct and operate the Works such that the design objectives named below as effluent parameters are consistently achieved in the Final Effluent from the Sewage Treatment Plant.The Owner shall design and operate the Sewage Treatment Plant in accordance with the following objectives for the Final Effluent:

a. Final Effluent concentration:

Concentration Objectives

Final Effluent Parameter	Objective	Averaging Calculator
CBOD5	15.0 mg/L	Monthly Average Effluent Concentration
Total Suspended Solids	15.0 mg/L	Monthly Average Effluent Concentration
Total Phosphorus	0.8 mg/L	Monthly Average Effluent Concentration
E. coli	100 organisms per 100 mL	Monthly Geometric Mean Density
pH	between 6.5 - 8.5 inclusive	Single Sample Result

b. Final Effluent is essentially free of floating and settable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.

c. The Annual Average Daily Influent Flow is within the Rated Capacity of the Sewage Treatment Plant.

(2) The Owner shall make an assessment of the issues and recommendation of pro-active actions if any

is required, and report to the Water Supervisor under the following situations:

a. when any of the design objectives is not achieved consistently;

b. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity.

7. COMPLIANCE LIMITS

(1) The Owner shall operate and maintain the Sewage Treatment Plant such that the following compliance limits are met in Final Effluent:

a. Final Effluent concentration:

Concentration Limits

Final Effluent Parameter	**Limit** (maximum permissible value unless otherwise indicated)	**Averaging Calculator**
CBOD5	25.0 mg/L	Monthly Average Effluent Concentration
Total Suspended Solids	25.0 mg/L	Monthly Average Effluent Concentration
Total Phosphorus	1.0 mg/L	Monthly Average Effluent Concentration
E. coli	200 organisms per 100 mL	Monthly Geometric Mean Density
pH	between 6.0 - 9.5 inclusive	Single Sample Result

b. Final Effluent loading:

Loading Limits

Final Effluent Parameter	**Limit** (maximum permissible value unless otherwise indicated)	**Averaging Calculator**
CBOD5	161 kg/d	Monthly Average Daily Effluent Loading
Total Suspended Solids	161 kg/d	Monthly Average Daily Effluent Loading
Total Phosphorus	6.5 kg/d	Monthly Average Daily Effluent Loading

8. 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 OWRA 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/update the operations manual for the Works within six (6) months of completion of construction of the Proposed Works, 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 and Contingency 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;

f. procedures for receiving, responding and recording public complaints, including recording any followup actions taken.

(3) The Owner shall maintain the operations manual up-to-date and retain a copy at the location of the Works for the operational life of the Works and upon request, 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.

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. Weekly means once every week;
b. Monthly means once every month.

(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.

Influent - Influent sampling point

Parameters	Sample Type	Frequency
BOD5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorus	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly

Final Effluent - Final Effluent sampling point

Parameters	Sample Type	Frequency
CBOD5	Composite	Weekly
Total Suspended Solids	Composite	Weekly
Total Phosphorus	Composite	Weekly
Total Ammonia Nitrogen	Composite	Weekly
Nitrite	Composite	Weekly
Nitrate	Composite	Weekly
Alkalinity	Composite	Weekly
E. Coli	Grab	Weekly
pH	Grab	Weekly
Temperature	Grab	Weekly

Definitions and preparation requirements for each sample type are included in document (4)(b) referenced below.

(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 documents:

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;

b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;

c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended.

(5) The temperature and pH of the Final Effluent 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.

(6) The Owner shall monitor and record the flow rate and daily/hourly quantity of the following sewage streams with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flowrate:

a. Influent by continuous flow measuring devices and instrumentations/pumping rates;

b. Final Effluent by continuous flow measuring devices and instrumentations/pumping rates.

(7) 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. LIMITED OPERATIONAL FLEXIBILITY (MINOR MODIFICATIONS TO THE WORKS)

(1) The Owner may make modifications to the Works in accordance with the protocol "Limited Operational Flexibility Criteria for Modifications to Sewage Works ", included as Schedule B of this Approval, subject to the following:

a. the modifications shall conform with the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended; and

b. the modifications shall not impact on the performance of any process or other equipment in the Works or result in deterioration in the Final Effluent quality

c. a "Notice of Modifications to Sewage Works" (included in Schedule B) describing the proposed modifications under Limited Operational Flexibility shall be completed and submitted to the Water Supervisor at least thirty (30) days prior to the scheduled implementation date.

(2) The following modifications are NOT permitted as part of Limited Operational Flexibility:

a. Modifications that involve addition or extension of process tankages or that may result in an increase in the treatment capacity of a process;

b. Modifications that involves relocation of the effluent outfall or any discharge location or that may require reassessment of the impact to the receiver or environment;

c. Modifications that involves a change in technology of a treatment process or that may involve reassessment of the treatment train process design and/or hydraulic profile;

d. Modifications that requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan; and

e. Modifications pursuant to an order issued by the Ministry.

(3) The Owner shall complete a Notice of Modifications describing any proposed modifications under Limited Operational Flexibility to the Works and submit it to the Water Supervisor at least thirty (30)

days prior to the scheduled implementation date.

11. REPORTING

(1) The Owner shall report to the Water Supervisor orally as soon as possible any non-compliance with the compliance limits, and in writing within seven (7) days of non-compliance.

(2) In addition to the obligations under Part X of the *Environmental Protection Act* , the Owner shall, within fifteen (15) working days of the occurrence of any reportable spill 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.

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

(4) The Owner shall prepare performance reports on a calendar year basis and submit to the Water Supervisor by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information:

a. a summary and interpretation of all Influent and Imported Sewage monitoring data, including sewage characteristics, flow rates and a comparison to the values used in the design of the Works;

b. a summary and interpretation of all Final Effluent monitoring data and a comparison to the compliance limits condition, including an overview of the success and adequacy of the Works;

c. a description of any operating problems encountered and corrective actions taken;

d. a summary of all maintenance carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;

e. a summary of any effluent quality assurance or control measures undertaken in the reporting period;

f. a summary of the calibration and maintenance carried out on all Influent, Imported Sewage and Final Effluent monitoring equipment;

g. a description of efforts made and results achieved in meeting the design objectives condition;

h. 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;

i. a summary of any complaints received during the reporting period and any steps taken to address the complaints;

j. a summary of all Bypasses, Overflows, reportable spills or abnormal discharge events;

k. 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;

l. a report summarizing all modifications completed as a result of Schedule B, Section 3.

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

1. Condition 1 is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.

2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to ownership and operator of the 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 a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction to ensure the ongoing protection of the environment, and that prior to the commencement of construction of the portion of the Works that are approved in principle only, the Director will have the opportunity to review detailed design drawings, specifications and an engineer's report containing detailed design calculations for that portion of the Works, to determine capability to comply with the Ministry's requirements stipulated in the terms and conditions of the Approval, and also. ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.

4. Condition 4 is included to indicate that Bypass is prohibited, except in circumstances where the failure to Bypass could result in greater damage to the environment than the Bypass itself. 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 Bypass Events.

5. Condition 5 is included to indicate that Overflow of untreated or partially treated sewage to the receiver is prohibited, except in circumstances where the failure to Overflow could result in greater damage to the environment than the Overflow itself. 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 Overflow Events.

6. Condition 6 is imposed to establish non-enforceable design objectives to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 7 are exceeded.

7. Condition 7 is imposed to ensure that the Final Effluent discharged from the Works to the environment

meets the Ministry's effluent quality requirements.

8. Condition 8 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. 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.

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 compliance limits.

10. Condition 10 is included to ensure that the Works are constructed, maintained and operated in accordance with the Approval, and that any pre-approved modification will not negatively impact on the performance of the Works.

11. Condition 11 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 this Approval.

Schedule A

1. Application for Approval of Sewage Works submitted by The Corporation of the Town of Saugeen Shores dated February 14, 2017 and design specifications and drawings prepared by Mr. Jeff Graham, GSS Engineering Consulting Ltd., Toronto, Ontario.

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 1,200 mm.

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 1,200 mm.

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 <u>not</u> 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.

Ontario
Ministry of
the Environment

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

(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)

ECA Owner	Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility

(Attach a detailed description of the sewage works)

Description shall include:
1. 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.)
2. Confirmation that the anticipated environmental effects are negligible.
3. 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

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:
1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print)	PEO License Number

Signature	Date (mm/dd/yy)

Name of Employer

Part 4 – Declaration by Owner

I hereby declare that:
1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the *Environmental Assessment Act*.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name of Owner Representative (Print)	Owner representative's title (Print)

Owner Representative's Signature	Date (mm/dd/yy)

EAB Form December 2, 2013

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 3159-8N7SJN issued on November 21, 2011.

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:

a. 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;
b. 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:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. 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 30th day of May, 2017

Fariha Pannu, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

RY/

c: DWMD Supervisor, MOECC Owen Sound
Rekha Chetlur, Registration and Compliance Section, MOECC Drinking Water Programs Branch – IMBS
Jeff Graham, GSS Engineering Consultants Ltd.