

AMENDED ENVIRONMENTAL COMPLIANCE APPROVALNUMBER 5131-A7ERV4
Issue Date: February 25, 2016

The Corporation of the Municipality of Huron East
72 Main Street
Post Office Box, No. 610
Seaforth, Ontario
N0K 1W0

Site Location: Seaforth Sewage Treatment Plant
79468 Hannah Line
Municipality of Huron East, County of Huron
N0K 1W0

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:

Re-rating of the existing Seaforth Sewage Treatment Plant for the collection, transmission, treatment and disposal of domestic sewage, re-rated at 2,400 m³/day Average Daily Flow and 10,800 m³/day Peak Flow Rate with final effluent discharge to the Bayfield River via the Crozier Drain, and consisting of the following Works:

Oak Street Pumping Station (Off-Site)

- One (1) reinforced concrete wet well with dimensions 6 m x 4 m with a dividing wall to facilitate isolation of any one portion of the wet well;
- One (1) manually raked bar screen;
- Dry well consisting of sewage pumps, sump pump, piping valves and fittings;
- Three (3) dry pit fixed speed sewage pumps, rated at the following:
 - One (1) pump, rated at 23 L/s at 17.9 m TDH that pumps to the Seaforth STP during dry weather plus manual valves that allow pumping emergency bypass flow to Silver Creek during wet weather;
 - Two (2) pumps, each capable of pumping 125 L/s that only operate during wet weather with manual valves that allow pumping emergency bypass flow to Silver Creek;
- One (1) magnetic flowmeter for measuring total flow to the Seaforth STP;

- One (1) magnetic flowmeter for measuring bypass flow to Silver Creek; and
- One (1) 125 kW standby power generator.

Sanitary Forcemains (Off - Site)

- 300 mm diameter forcemain from the Oak Street Pumping Station to the forcemain bypass chamber;
- 250 mm diameter forcemain from the forcemain bypass chamber to the Seaforth Sewage Treatment Plant inlet works as follows:

Oak Street from Sewage Bypass Chamber to Main Street
Main Street from Oak Street to Brantford Street
Brantford Street from Main Street to the Town Limit
Easement from the Town Limit to the Sewage Treatment Plant

- One (1) bypass chamber;
- 100 mm diameter overflow forcemain from the pumping station to Silver Creek.

Sanitary Sewers

Sanitary sewers and appurtenances as follows:

Crombie Street from Victoria Street to Chalk Street
Side Street from Main Street to Chalk Street
Easement from Gouinlock Street to approximately 30 m south of Goderich Street
Easement from approximately 30 m south of Goderich Street to approximately 120 m east along
Easement

including stub sewer connections and building sewers from the main sewer to the street line,

Seaforth Sewage Treatment Plant

Inlet Works

- A vortex type grit removal system capable of handling a peak flow of 145 L/s and equipped with grit flushing piping and grit decanter; and
- A screenings comminutor with a maximum rated capacity of 145 L/s.

Aeration Tanks

- Two (2) aeration tanks, each 23.4 m by 11.7 m by 4.4 m side water depth (SWD) and equipped with two (2) 15 kW capacity surface aerators per tank.

Final Clarifiers

- Two (2) secondary clarifier tanks, each 23.4 m by 5 m by 4.3 m SWD;
- Two (2) positive displacement activated sludge pumps, each rated at 44 L/s, including a

macerator/grinder in the suction piping, located in the basement of the control building in a 5.3m by 11.7m room;

- One (1) 400 mm diameter direct discharge pipe approximately 660 m, located around the east and south perimeter of the Lagoon Cells No. 2 and 3 within the existing berms, including four (4) 1.5 m diameter maintenance chambers to discharge secondary effluent to UV disinfection.

Alum Storage

- A 27,000 L capacity alum storage tank complete with two (2) metering pumps, each capable of handling a pumping rate of 20 L/hour.

Disinfection Facilities

- An ultraviolet (UV) disinfection system capable of treating the peak flow of 10,800 m³/d, consisting of one (1) UV bank equipped with five (5) modules in parallel and one (1) level control gate. The bank includes 30 Low Pressure-High Output Lamps arranged in five (5) rows of six (6) lamps; and
- A 4.3 m by 14 m outlet control structure and sampler building including flow measurement devices.

Sludge Storage Lagoon

- One (1) facultative lagoon (Cell No.1) an approximate dimension of 240 m by 170 m, 1.8 m SWD, including inlet structure, interconnecting control piping, gates/valves and discharge structures.

Emergency Storage Lagoon

- Two (2) earthen lagoons (Cell No.2 and No.3) each having an approximate dimension of 240 m by 170 m, 1.8 m SWD, including inlet structure, interconnecting control piping, gates/valves and discharge structures to be used for flow equalization of secondary effluent during extreme wet weather events to be returned later upstream of UV disinfection.

Administrative Building

- An administration building complete with offices, laboratory, workshop, storage space, washroom, lockers, and chemical storage area, together with associated appurtenances, piping, heating ventilation, electrical and controls;

Standby Power

- One (1) 400 kW Standby Power Diesel Generator and associated electrical equipment located in the control building;

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

all in accordance with 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;

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

"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.

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

"Event" in the context of the Sewage Treatment Plant 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;

"Event" in the context of the Sewage Pumping Station located outside the Sewage Treatment Plant

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

"Geometric Mean Density" is the n th root of the product of multiplication of the results of n number of samples over the period specified;

"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;

"Monthly Average Concentration" means the arithmetic mean of all Daily Concentrations of a contaminant in the effluent sampled or measured, or both, during a calendar month;

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

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

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

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

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

"Peak Flow Rate" means the maximum rate of sewage flow for which the plant or process unit was designed;

"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;

"Previous Works" means those portions of the sewage works previously constructed and approved under an Approval;

"Proposed Works" means the sewage works described in the Owner's application, this Approval, to the extent approved by this Approval;

"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 Southwest Region of the Ministry;

"Sewage Pumping Station Overflow" means any discharge from a Sewage Pumping Station located outside the Sewage Treatment Plant that does not undergo any treatment or only receives partial treatment before it is discharged to the environment;

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

"Water Supervisor" means the Water Supervisor for the Sarnia and Windsor Offices of the Ministry; and

"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 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 Informations 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 or Sewage Pumping Station Overflow is prohibited, except:
 - (a) in an Emergency Situation;
 - (b) where the By-pass / Plant Overflow / Sewage Pumping Station 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 / Plant Overflow / Sewage Pumping Station Overflow and the Water Supervisor has given written consent of the By-pass / Plant Overflow / Sewage Pumping Station Overflow; and
 - (c) where the By-pass / Plant Overflow / Sewage Pumping Station Overflow is planned for research or training purposes, the discharger notified the Water Supervisor 15 days prior to the By-pass / Plant Overflow / Sewage Pumping Station Overflow and the Water Supervisor has given written consent of the By-pass / Plant Overflow / Sewage Pumping Station Overflow.

- (2) The Owner shall forthwith notify the Spills Action Centre (SAC) and the Medical Officer of Health of all By-pass, Plant Overflow and Sewage Pumping Station 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, Plant Overflow and Sewage Pumping Station 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 / Sewage Pumping Station Overflow and have it analyzed for parameters outlined in Condition 6 using the protocols specified in Condition 8, 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 or Sewage Pumping Station Overflow.
- (5) The Owner shall maintain a logbook of all Plant By-passes, Plant Overflows, and Sewage Pumping Station 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 and Sewage Pumping

Station 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	8.0
Total Suspended Solids	10.0
Total Phosphorus	0.6
Total Ammonia Nitrogen	2.0
Hydrogen Sulfide	Below Detection Limit
<i>E.coli</i>	100 cfu per 100 mL (monthly geometric mean)

- (2) The Owner shall use best efforts to:
- (a) maintain the pH of the effluent from the Works within the range of (6.5- to -9.5), 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 discolouration on the receiving waters.
- (3) The Owner shall include in all reports submitted in accordance with Conditions 8 and 9 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 and waste loadings 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)	Average Waste Loading (kilograms per day unless otherwise indicated)
Column 1	Column 2	Column 3
CBOD5	12.0	28.5
Total Suspended Solids	15.0	36.0
Total Phosphorus	0.8	1.9
Total Ammonia Nitrogen	2.0 (June to Sept) 4.0 (Oct. to May)	4.8 (June to Sept) 9.6 (Oct. to May)
Hydrogen Sulfide	Below Detection Limit	-

- (2) For the purposes of determining compliance with and enforcing subsection (1):
- (a) The Monthly 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).
 - (b) The Monthly Average Loading of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum waste loading set out in Column 3 of subsection (1).
- (3) The pH of the effluent shall be maintained within the limits of 6.5 to 9.5, at all times.
- (4) Notwithstanding subsection (1), the Owner shall operate and maintain the Works such that the effluent is continuously disinfected so that the monthly Geometric Mean Density of *E. coli* does not exceed 100 organisms per 100 millilitres of effluent discharged from the Works.

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 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 an operations manual within six (6) months of the issuance of this Approval, 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. 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, weekly means once each week.
- (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 (samples to be collected at the inlet works)		
Parameters	Sample Type	Frequency
BOD5	Composite	Weekly
Total Suspended Solids	Composite	Weekly
Total Phosphorus	Composite	Weekly
Total Kjeldahl Nitrogen	Composite	Weekly

Table 4 - Effluent Monitoring (samples to be collected at the end of the UV channels in the UV disinfection building)		
Parameters	Sample Type	Frequency
CBOD5	Composite	Weekly
Total Suspended Solids	Composite	Weekly
Total Phosphorus	Composite	Weekly
Total Ammonia Nitrogen	Composite	Weekly
<i>E. coli</i>	Grab	Weekly
Temperature	Grab	Weekly
pH	Grab	Weekly
Dissolved Oxygen	Grab	Weekly
Hydrogen Sulfide	Grab	Weekly

- (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;
- (5) 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).
- (6) The Owner shall install and maintain continuous flow measuring device(s), to measure the flowrate of the effluent from 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.
- (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.

9. REPORTING

- (1) Fifteen (15) days prior to the date of a planned By-pass or Overflow being conducted pursuant to Condition 4 and as soon as possible for an unplanned By-pass or Overflow, 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 or Overflow.
- (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.

10. 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 / Sewage Pumping Station 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 / Sewage Pumping Station Overflow could result in greater injury to the public interest than the Bypass itself where a By-pass / Plant Overflow / Sewage Pumping Station Overflow will not violate the approved effluent requirements, or where the By-pass / Plant Overflow / Sewage Pumping Station 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 / Sewage Pumping Station Overflow.

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 7 are exceeded.
6. Condition 6 is imposed to ensure that the effluent discharged from the Works to the Bayfield 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 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.
9. Condition 9 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.
10. Condition 10 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. Environmental Compliance Approval Application for Municipal Sewage Works submitted by the Municipality of Huron East, dated September 9, 2015;
2. A report entitled "Addendum to the Class Environmental Assessment for Expansion and Upgrading of the Seaforth Sewage Treatment Facility and Oak Street Pumping Station," dated August 2015 (Revised), and prepared by CH2M Hill Canada Ltd.
3. A report entitled "Technical Re-rating of the Seaforth STP," dated September 2015 and prepared by CH2M Hill Canada Ltd.
4. Environmental Compliance Approval Application for Municipal Sewage Works submitted by Richard R. Anderson, P.Eng, of BM Ross and Associates Limited, Consulting Engineers, dated March 1st, 2013;
5. A report entitled "Municipality of Huron East Seaforth Sewage Treatment Plant Expansion; Phase 1 – Design Brief and Specification", File No.10086, dated March 6, 2013 and prepared by BM Ross and Associates Limited;
6. A report entitled "Municipality of Huron East Class Environmental Assessment for Expansion and upgrading of the Seaforth Sewage Treatment Facility and Oak Street Pumping Station – Environmental Study Report", File No.04116, dated March 9, 2010 and prepared by BM Ross and Associates Limited;
7. A set of engineering drawings entitled "Municipality of Huron East Seaforth Sewage Treatment Plant Expansion; Phase 1 – Project No. 10086, Contract No.1", dated March 5, 2013 and prepared by BM Ross and Associates Limited; and
8. Email dated March 21, 2013 from Richard Anderson, P.Eng., of BM Ross and Associates Limited to Youssouf Kalogo, P.Eng., of the Ontario Ministry of the Environment.
9. Application for Approval of Municipal and Private Sewage Works, dated September 04, 2003, design brief, drawings and addendum documents prepared and submitted by B.M.Ross and Associates Limited, Consulting Engineers;
10. Approval of Municipal and Private Sewage Works prepared and submitted by B.M.Ross and Associates Limited, Consulting Engineers in 1992 and 1994 and Ontario Clean Water Agency in 1998;

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

(Insert the ECA's owner, number, 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. Conforms with the Limited Operational Flexibility as per 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. These 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)

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).
6659-A6APTD issued on January 19, 2016**

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 25th day of February, 2016



Fariha Pannu, P.Eng.

Director

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

SH/

c: District Manager, MOECC Owen Sound
Jeremy Kraemer, P.Eng., CH2M Hill Canada Limited