

AMENDED ENVIRONMENTAL COMPLIANCE APPROVALNUMBER 9261-AKJL76
Issue Date: May 11, 2017

The Corporation of Haldimand County
45 Munsee St N
Haldimand, Ontario
N0A 1E0

Site Location: Jarvis Sewage Treatment Lagoons
97 Talbot St E
Haldimand County

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:

Establishment of municipal sewage works under Section 53 of OWRA for the collection, transmission, and treatment of sanitary sewage and disposal of effluent through Jarvis Creek which joins Sandusk Creek via a Sewage Treatment Plant (Jarvis Sewage Treatment Lagoons), serving the Community of Jarvis, County of Haldimand, as follows:

Rated Capacity of Sewage Treatment Plant: 853 m³/d

PREVIOUS WORKS:**Pumping Station**

Pumping Station, located approximately 165 metres south of Talbot Street and to the east of access road, consisting of:

- Three (3) submersible pumps with each pump having an approximate pumping capacity of 60.0 litres per second at 12.5 m TDH, basket screen and an overflow with normally closed sluice gate (emergency by-pass);

Waste Stabilization Lagoons

Waste Stabilization Ponds located on Parts 4 & 5, Concession VII, Registered Plan R 2904 and approximately 2500 meters south of Talbot Street, including two (2) sewage distribution chambers, controlled discharge outlets to the adjacent creek, all related piping, valves, and appurtenances and four sewage lagoon cells with the following storage capacities:

1. Cell No. 1: 33,686 m³
2. Cell No. 2: 40,109 m³
3. Cell No. 3: 29,593 m³
4. Cell No. 4: 52,312 m³

Upgrade of Existing Waste Stabilization Lagoons

- Construct a new 1200 mm X 1200 mm stop log outlet structure; install 25 m of 250 mm diameter outlet pipe; 1200 mm diameter manhole; and 130 m length 300 mm diameter outlet pipe for the existing Cell No.1.
- Construct a new 1200 mm X 1200 mm stop log outlet structure and install 25 m long 250 mm diameter outlet pipe; 1200 mm diameter manhole; 100 m long 300 mm diameter outlet pipe for the existing Cell No.2.
- Install a 1200 mm diameter manhole to receive flow from the 300 mm diameter outlet pipes from Cell # 1 and Cell # 2; install a 10 m long 525 mm diameter PVC outlet pipe; install 1500 mm diameter metering manhole containing a 525 mm Palmer Bowlus flume, ultrasonic level transducer and associated equipment for monitoring of flow from Cell # 1 and/or Cell #2; install a 7 m long 525 mm diameter PVC pipe to the Creek c/w flag gate and rip rap.
- Install a new 1500 mm diameter metering manhole, on the existing outfall pipe from existing Cell No. 3 and 4, containing a 525 mm Palmer Bowlus Flume, ultrasonic level transducer and associated equipment for monitoring flow from Cell No. 3 and/or 4.
- Install new 2400 mm X 3800 mm precast concrete chamber to house (2) motorized knife gate valves (250 mm) and (2) flow meters (250mm).
- Install new 3 phase hydro service and fiber optic lines from Jarvis SPS to existing Sea Containers at Cells 1&2 and Cells 3&4.
- Install one (1) new level measurement pressure transmitter for each of the cells (Cell 1, Cell 2, Cell 3, and Cell 4).
- Integration of motorized knife gate valves and level measurement data with SCADA network for real time control and monitoring.

Control Building

- A masonry building housing all related electrical equipment and a stand-by diesel generator set with a capacity of 45 kW.
- 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 documents listed in Schedule A.

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

"Annual Average Concentration" means the arithmetic mean of all the Single Sample Concentrations of a contaminant in the effluent calculated for any particular calendar year;

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

"Annual 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;

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

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

"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 Sewage Treatment Plant outfall;

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

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

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

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

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

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

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

"Event" means an action or occurrence, at a given location within the Sewage Treatment Plant that causes a Bypass or 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. An Overflow Event and a Bypass Event are two separate reportable events even when they occur concurrently;

"Final Effluent" means effluent that are discharged to the environment through the approved Final Effluent Outfall, including all Bypasses, that are required to comply with the effluent limits stipulated in the Approval for the Sewage Treatment Plant, pertaining specifically to the Final Effluent sampling point;

"Geometric Mean Density" is the nth 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;

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

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

"Owner" means The Corporation of Haldimand County and its successors and assignees;

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

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

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

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

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

"Water Supervisor" means the Water Compliance Supervisor for the Safe Drinking Water Branch (SDWB) for the Guelph, Hamilton, and Niagara offices of the Ministry;

"Works" means the sewage works described in the Owner's application and this Approval, and includes 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 submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
- (5) The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

2. CHANGE OF OWNER

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

- (b) change of address of the Owner;
- (c) change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c.B17 shall be included in the notification to the Water Supervisor;
- (d) change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C39 shall be included in the notification to the Water Supervisor;

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

3. AS-CONSTRUCTED DRAWINGS OF THE WORKS

- (1) Within one (1) year of the issuance date of this Approval, the Owner shall prepare a set of as-built drawings showing the works “as constructed”. 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. BYPASSES

- (1) Any Bypass is prohibited, except:
 - (a) in an Emergency Situation;
 - (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 and the Water Supervisor has given written consent of the Bypass;
- (2) For any Bypass Event, the Owner shall forthwith 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(s), time(s) of the Bypass(es);
 - (b) the treatment process(es) Bypassed and the status of the disinfection;
 - (c) the reason(s) for the Bypass(es).
- (3) After any Bypass Event, the Owner shall collect and record the following information:

- (a) the duration of the Bypass Event;
 - (b) the measured or the estimated volume of Bypass(es) for each Event.
- (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 Effluent Limits condition. These samples shall be in addition to the regular samples required in the Monitoring and Recording condition and shall follow the same Protocols specified in the Monitoring and Recording condition.
- (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) for Bypass(es). The Water Supervisor may modify the reporting frequency at any time in writing.

5. OVERFLOWS

- (1) Any Overflow is prohibited, except:
- (a) in an Emergency Situation;
 - (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 and the Water Supervisor has given written consent of the Overflow.
- (2) For any Overflow Event, the Owner shall forthwith 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(s), time(s) of the Overflow(s);
 - (b) the location(s) of the Overflow(s) and the receiver;
 - (c) the reason(s) for the Overflow(s); and
 - (d) the level of treatment the Overflow(s) 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 monitored or estimated volume of the Overflow(s); and
 - (c) the impact of Overflow(s) on the receiver.
- (4) For any 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 every 4 hours for the duration of the Event, and have them analyzed for effluent parameters outlined in Effluent Limits condition. For raw sewage and primary treatment system Overflow, BOD5 shall be monitored instead of CBOD5.
- (5) The Owner shall submit a summary report of the Overflow(s) 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) for Overflow(s). The Water Supervisor may modify the reporting frequency at any time in writing.

6. 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	15
Suspended Solids	15
Total Ammonia Nitrogen	15
Total Phosphorus	0.5
E. Coli	200 organism/100 mL

- (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 8.5, inclusive, at all times;
 - (b) operate the works within the Rated Capacity of the Works;
- (3) The Owner shall include in all reports submitted in accordance with Condition 11 a summary of the efforts made and results achieved under this Condition.

7. EFFLUENT LIMITS

- (1) The Owner shall design, 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	Concentration (milligrams per litre unless otherwise indicated)	Waste Loading (kilograms per day unless otherwise indicated)
Column 1	Column 2	Column 3
CBOD5	25	21.3
Total Suspended Solids	25	21.3
Total Phosphorus	0.5	0.43
Total Ammonia Nitrogen	25	-
pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times		

- (2) For the purposes of determining compliance with and enforcing subsection (1):
- (a) The Annual Average Concentration of CBOD5, Total Suspended Solids, and Total Phosphorus named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).
 - (b) The Annual Average Loading of CBOD5, Total Suspended Solids, and Total Phosphorus named in Column 1 of subsection (1) shall not exceed the corresponding maximum waste loading set out in Column 3 of subsection (1).
 - (c) The Single Sample Concentration of Total Ammonia Nitrogen named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).
 - (d) The pH of the effluent shall be maintained within the limits outlined in subsection (1), at all times.
- (3) The effluent limit set out in subsection (1) shall apply upon the issuance date of this Approval.

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 Act and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the Works.
- (2) The Owner shall prepare an updated operations manual within one (1) year of the issuance date 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 and Contingency Plan prepared and kept up-to-date, 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 follow up 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.
- (5) The Works shall be operated on a semi-annual discharge basis as follows:
 - (a) **Spring Effluent Discharge Period:** not to start earlier than **March 15** and terminating within 45 days; Discharge allowed for 30 days (consecutive or non-consecutive) but not less than 21 days; and

- (b) **Fall Effluent Discharge Period:** not to start earlier than **November 1** and terminating within 45 days; Discharge allowed for 30 days (consecutive or non-consecutive) but not less than 21 days.
- (6) The Water Supervisor may, in writing, agree to or direct that the rate and period of discharge be altered within the physical capability of the Works to allow the discharge to coincide with the period of peak flow and maximum dilution in the receiving watercourse.
- (7) The Operating authority shall notify the Water Supervisor at least twenty four (24) hours prior to the commencement of effluent discharge from the Works.

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) Daily means once each day;
 - (b) Weekly means once each week; and
 - (c) 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:

Table 3 - Raw Sewage Monitoring	
Sampling Location: Inlet Manhole to Lagoons	
Frequency	Weekly
Sample Type	Composite
Parameters	BOD ₅ , Total Suspended Solids, Total Phosphorus, Total Kjeldahl Nitrogen

Table 4 - Effluent Monitoring		
Sampling Location: Effluent Outfall Downstream of Stabilization Pond		
Parameters	Sample Type	Frequency ^{*NOTE 1}
<i>CBOD5</i>	Grab	*NOTE 1
Total Suspended Solids	Grab	*NOTE 1
Total Phosphorus	Grab	*NOTE 1
Total Ammonia Nitrogen	Grab	*NOTE 1
E. Coli	Grab	*NOTE 1
pH	Grab	*NOTE 1
Temperature	Grab	*NOTE 1

***NOTE 1:** A grab sample shall be collected on the first and last day of an effluent discharge period as well as every three (3) calendar days during the effluent discharge period (Spring and Fall).

- (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 Version 2.0" (January 2016), PIBS 2724e02, 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 measurement frequencies specified in subsection (3) in respect to any parameter are minimum requirements which may, after twenty (24) months of monitoring in accordance with this Condition, be modified by the Water Supervisor in writing from time to time.
- (7) The Owner shall install and maintain a flow measuring device(s), to measure (estimate) the flow rate of the effluent from the Works with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flow rate for the entire design range of the flow measuring device, and record the total volume of effluent discharged during each discharge event.

- (8) 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

- (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.

11. REPORTING

- (1) Ten (10) days prior to the date of a planned Bypass being conducted pursuant to Condition 4 and as soon as possible for an unplanned Bypass, 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 Bypass.
- (2) The Owner shall report to the Water Supervisor or designate, any exceedence of any parameter specified in Condition 7 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 to the Water Supervisor a performance report, 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 7, including an overview of the success and adequacy of the Works;

- (b) a summary and interpretation of all effluent plum monitoring data and effluent discharge impact assessment to Gull River;
- (c) tabulation of calculated un-ionized ammonia concentrations in final effluent, based Total Ammonia Nitrogen concentrations, temperature, and pH of final effluent;
- (d) tabulation of daily flow rates and monthly volumes including average daily flows for discharge periods reported;
- (e) a summary of all Bypass, spill or abnormal discharge events;
- (f) an overview of the sludge disposal program, including tabulation of quantity and quality of sludge and the disposal areas used for each sludge source during the reporting period, together with an outline of the proposed sludge handling method and disposal areas to be utilised over the next reporting period;
- (g) a description of any operating problems encountered and corrective actions taken;
- (h) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6;
- (i) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (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 may require from time to time.

Schedule A

I. PREVIOUS WORKS:

1. Application for Approval of Municipal and Private Sewage Works submitted by R.J. Burnside and Associates Limited of Orangeville, Ontario dated August 25, 2003;
2. Design Brief Report and final drawings and specifications submitted on August 25, 2003.
3. Application for amendment of Environmental Compliance Approval submitted by The Corporation of Haldimand County received on August 10, 2016.
4. A report titled "Jarvis Lagoon Effluent Phosphorus Offsetting" dated July 20, 2016 prepared by Haldimand County.
5. Memorandum from Paul Odom, Surface Water Specialist, Technical Support Section, West-Central Region, MOECC, dated June 8, 2016, with review comments and recommendations on the Jarvis WPCP TP-Offset Proposal.

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. 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 facility Rated Capacity is not exceeded and the existing flow process and/or treatment train are maintained, as applicable.

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 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. For clarity proposes, the following equipment can be considered under this provision: 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 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.

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

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility <i>(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)</i>		
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 <i>(Attach a detailed description of the sewage works)</i>
<p>Description shall include:</p> <ol style="list-style-type: none"> 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	
<p>I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:</p> <ol style="list-style-type: none"> 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. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name (Print)	PEO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

Part 4 – Declaration by Owner	
<p>I hereby declare that:</p> <ol style="list-style-type: none"> 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 <i>Environmental Assessment Act</i>. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)



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 and 5 are included to indicate that Bypass / Overflows of untreated or partially treated sewage to the receiving watercourse is prohibited, save in certain limited circumstances where the failure to Bypass / Overflow could result in greater injury to the public interest than the Bypass itself where a Bypass / Overflow will not violate the approved effluent requirements, or where the Bypass / 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 Bypass / Overflow events.
5. Condition 6 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 occur and before the compliance limits of Condition 7 are exceeded.
6. Condition 7 is imposed to ensure that the effluent discharged from the Works to the Jarvis Creek which joins Sandusk Creek 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 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 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 work.

8. Condition 9 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and effluent limits specified in the Approval and that the Works does not cause any impairment to the receiving watercourse.
9. 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.
10. 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 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.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).
5311-5SDLLA issued on February 20, 2004**

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

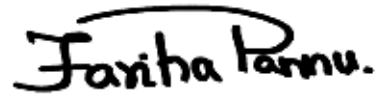
AND

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 11th day of May, 2017



Fariha Pannu, P.Eng.

Director

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

SH/

c: DWMD Supervisor, MOECC Hamilton - District
Phil Wilson, The Corporation of Haldimand County



Notice of Modifications Dec-2013.pdf