

# Ministry of the Environment, Conservation and Parks Ministère de l'Environnement, de la Protection de la nature et des Parcs

#### ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER: 0001115808

Version: 1.0

Issue Date: 11/12/2020

Pursuant to section 20.3 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 and subject to all other applicable Acts or regulations this Environmental Compliance Approval is issued to:

Client Name: CERICOLA FARMS LIMITED

**Address:** Street Information: 3855 4th Line

City/Town: Bradford

Municipality: BRADFORD-WEST GWILLIMBURY

State/Province: ONTARIO Postal Code: L3Z 2A4 Country: Canada

For the following site:

**Site Name:** Cericola Farms

**Site Location:** Street Information: 3855 4th Line

Postal Code: L3Z 2A4 City/Town: Bradford

Municipality: BRADFORD-WEST GWILLIMBURY

State/Province: ONTARIO

Country: CANADA

MECP District/Area Office: Barrie District Office

This Environmental Compliance Approval includes the following:

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## **Section 1: Activity Description**

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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:

Expansion and modifications, to increase the treatment capacity from 775 cubic metres per week (155 cubic metres per day) to approximately 2,325 cubic metres per week (approximately 465 cubic metre per day), to existing sewage Works for the treatment and disposal of mixed industrial wastewater (poultry chicken processing and domestic sewage) from the Cericola Farms Limited located at UTM Coordinate NAD 83 Zone 17 Easting 609104.889, Northing 4879208.308 (front door), consisting of the following Works:

- an existing 100 millimetre diameter pipe from the domestic sewage into two (2) precast concrete septic tanks in series with capacity of 13,500 litres each, effluent from which is directed to the 100 millimetre diameter forcemain conveying from the tanks into an aerated facultative lagoon:
- an existing 150 millimetre diameter pipe from the Poultry processing wastewater stream located at the ISW building basement and as shown on drawing CF-13 to the screening;

#### Screening

• one (1) existing rotating drum screen with a stainless steel mesh with 2.4 millimetre openings, discharging to a concrete pump pit of capacity 3,400 litres (900 gallons), equipped with one (1) solids handling sewage pump, rated at 15 litres per second discharging to a dissolved air flotation (DAF) unit;

#### Dissolved Air Flotation (DAF) Unit

- one (1) existing dissolved air flotation unit to separate the oil/fat from the liquid stream and is equipped with:
  - one (1) existing solids handling pump rated at 24 litres per second to discharge the effluent liquid to the aerated facultative lagoon via 100 millimetre diameter forcemain piping laid in twins;
  - new Chemical treatment controls to dose coagulant and polymer to the DAF influent;

#### Aerated Facultative Lagoon

• one (1) existing aerated facultative lagoon with a total effective storage volume of 9,913 cubic metres at maximum operating water depth of 3.34 metres and a minimum freeboard of 0.9 metre, equipped with one (1) proposed Tri-Lobe blower rated to deliver a minimum of 10.08 cubic metres per minute (356 cfm) and two (2) Standby Tri-Lobe blowers each rated to deliver a minimum of 1,94 cubic metres per minute (64.94 cfm), as well as two (2) 7.5 kW and two (2) 5.6 kW self-aspirating, floating mechanical aerators operated as required, and an existing Fine Bubbler Diffuser Piping and a series of porous diffuser systems operated as required; all effluent discharging to the existing polishing/holding lagoon by gravity or transfer pump as described below;

#### **Transfer Pumping**

• one (1) existing lagoon transfer pump located in the aerated facultative lagoon, rated at 6 (six) litres per second to direct the effluent from the aerated facultative lagoon to the polishing lagoon, as required;

#### Cross-Transfer Pump

• one (1) new lagoon cross transfer pump located in the Aeration Lagoon, rated at 16 litres per second to direct the effluent from the exit of the aerated facultative lagoon back to the inlet of the aerated facultative lagoon as required;

#### **Diversion Weir**

• an existing weir system to create a preferred pathway of water flow in the Aerated Facultative Lagoon to maximize treatments.

#### Polishing Lagoon

- one (1) existing polishing lagoon with effective storage capacity of 47,493 to 53,255 cubic metres at operating depths of 3.84 to 4.24 metres respectively with a minimum freeboard of 0.9 metre; complete with two (2) solar powered low speed aerator (Solar Bee unit) with a centre tube and driven by horizontal surface impellers, located within the polishing lagoon to provide mixing, increase dissolved oxygen levels within the lagoon and to reduce production of foul odours and algae growth; complete with odour control system as follow:
  - an existing portable fogging system (liquid spray mist of proprietary solvents) used as required to mitigate odours around the lagoons;
  - · existing addition of beneficial bacteria for shock treatment and to reduce odour; to be used as and when deemed required;

#### Effluent Disposal

- an existing on land spray application system encompassing of five (5) centre pivot mounted spray irrigators, being used on fields A, B, D, E and F, encompassing an area of approximately 45 hectares, equipped with several segments of polyethylene pipes, mounted on wheeled towers with sprinklers, having a flow delivery rate not to exceed 6mm/hour over the areas; complete with the following:
  - a travelling boom systems (42 metre wide), being used on field G having an area of 2 hectares;
  - one (1) pumping unit of 250 hP, capable of producing 140 psi @ 1766 GPM, equipped with a pressure relief valve, and provision for a replacement pump with equivalent or less capacity; and
  - one (1) flow meter installed at the pumping station to monitor irrigation flow rate and totalizer unit to measure total effluent application per day, per week and per season; including all other controls, electrical equipment, instrumentation, piping, auxiliary pumps, valves and appurtenances essential for the proper operation of the aforementioned sewage Works.

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

#### **Section 2: Definitions**

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

- 1. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
- 2. "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;
- 3. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
- 4. "Equivalent Equipment" means alternate piece(s) of equipment that meets the design requirements and performance specifications of the piece(s) of equipment to be substituted;
- 5. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
- 6. "Grab Sample" means an individual sample of at least 1000 millilitres collected in an appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;
- 7. "Influent" means flows to the Works from the collection system;
- 8. "Limited Operational Flexibility" (LOF) means the conditions that the Owner shall follow in order to undertake any modification that is pre-authorized as part of this Approval;
- 9. "Single Sample Concentration" means the test result of a parameter in the effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, as required;
- 10. "PEA" means Professional Engineers Act, R.S.O. 1990, c. P.28;
- 11. "Works" means the approved sewage works, and includes Proposed Works, Existing Works and modifications made under Limited Operational Flexibility.
- 12. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the PEA:
- 13. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed:
- 14. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
- 15. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
- 16. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
- 17. "Owner" means Cericola Farms Limited, and its successors and assignees;

## **Section 3: Terms and Conditions**

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

#### 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 referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.
- 4. 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 District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:
  - 1. change of address of Owner;
  - 2. change of Owner, including address of new owner;
  - 3. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c. B.17, as amended, shall be included in the notification;
  - 4. change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C.39, as amended, shall be included in the notification.
- 2. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

#### 3. CHANGES IN PROCESSES OR PROCESS MATERIALS

1. The Owner shall give written notice to the District Manager of any plans to change the processes or process materials in the Owner's enterprise serviced by the Works where the change may not significantly alter the quantity or quality of the influent to the Works, while complying with the approved effluent quantity and quality from the Works, and no such change(s) shall be made unless with the written concurrence or approval of the District Manager.

## 4. CONSTRUCTION OF PROPOSED WORKS / RECORD DRAWINGS

- 1. All Proposed Works in this Approval shall be constructed and installed and must commence operation within five (5) years of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Works not in operation. In the event that the construction, installation and/or operation of any portion of the Proposed Works is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change.
- 2. Upon completion of construction of the Proposed Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the Proposed Works is constructed in accordance with this Approval.

- 3. One (1) week prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
- 4. Within one (1) year of completion of construction of the Proposed Works, a set of record drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.
- 5. A set of record drawings of the Works shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.

#### 5. **DESIGN OBJECTIVES**

- 1. The Owner shall design and undertake everything practicable to operate the Works in accordance with the following objectives:
  - 1. The effluent (from polishing pond) parameters design objectives listed in the table included in Schedule B.
  - 2. Notwithstanding any other condition in this Approval, the Owner shall ensure that the effluent from the Polishing Lagoon 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, sheen or foam on the receiving environment.
  - 3. The Influent flow to the Works is not exceeding approximately 2,325 cubic metre per week.

#### 6. OPERATION AND MAINTENANCE

- 1. The Owner shall ensure 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 laboratory facilities, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and relevant regulations made under the OWRA, process controls and alarms and the use of process chemicals and other substances used in the Works.
- 2. The Owner shall prepare/update the operations manual for the Works within six (6) months of completion of construction of the Proposed Works, that includes, but not necessarily limited to, the following information:
  - 1. operating procedures for the Works under normal operating conditions;
  - 2. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
  - 3. repair and maintenance programs, including the frequency of repair and maintenance for the Works;
  - 4. procedures for the inspection and calibration of monitoring equipment;
  - 5. operating procedures for the Works to handle situations outside normal operating conditions and emergency situations such as a structural, mechanical or electrical failure, or an unforeseen flow condition, including procedures to minimize bypasses and overflows;
  - 6. a spill prevention and contingency plan, consisting of procedures and contingency plans, including notification to the District Manager, to reduce the risk of spills of pollutants and prevent, eliminate or ameliorate any adverse effects that result or may result from spills of pollutants; and

- 7. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
- 3. The Owner shall maintain the operations manual up-to-date and make the manual readily accessible for reference at the Works.
- 4. The Owner shall employ for the overall operation of the Works a person who possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.

#### 7. LAND APPLICATION OPERATION AND MONITORING

- 1. The Owner shall operate the land application system during daylight hours and only between May 1 and October 15. Prior written consent of the District Manager shall be obtained to operate the land application system for the period: March 15 to April 30 and October 16 to November 30.
- 2. The Owner shall ensure that land application of effluent shall be limited to the areas approved under the Cericola Farms Ltd. Irrigation Plan, dated May 17, 2011, and approved by the District Manager on May 30, 2011, as amended from time to time and approved in writing by the District Manager.
- 3. Subject to subsection 2, the Owner shall limit the land application to the following areas, unless approved in writing by the District Manager:
  - 1. home farm: Part Lots 4 and 5 Concession 3, known as 3855 4th Line, Bradford West Gwillimbury (Drawing CF-06); and
  - 2. off site farm: Part Lots 3 and 4, Concession 3, known as 3955 & 4057 4th Line, Bradford West Gwillimbury (Drawing CF-08).
- 4. The Owner may use other methods of land application with the prior written approval of the District Manager, which may include, but not limited to the following:
  - 1. Tanker application and/or spray irrigation with full incorporation; or
  - 2. Tanker application and/or spray irrigation with airway equipment.
- 5. The Owner shall maintain a log book of the land application operation at the site at all times and it shall be made available for inspection by the Ministry personnel upon request. This log shall contain but not be limited to the following:
  - 1. hours of operation;
  - 2. daily land applied volume (the total irrigated volume will be included in the Annual Report);
  - 3. land applied field;
  - 4. average ambient temperature;
  - 5. average wind speed and direction;
  - 6. rainfall data from simple rain gauges installed at the land application sites to record total rainfall over a 24 hour period during rainfall events;
  - 7. maintenance performed; and
  - 8. occurrence of unusual events.
- 6. The Owner shall operate the land application system of the treated wastewater with the following operating restrictions:
  - 1. Ponding: No ponding should occur in the irrigation area that could lead to run-off. In this event, the application of treated wastewater shall be stopped and resumed after sufficient time is allowed for the area to dry to a degree that would preclude immediate recurrence of ponding or run-off.

- 2. Run-off: Run-off shall not be permitted from the approved spreading fields. In the event of run-off flowing from the approved spreading fields, the application of treated wastewater shall be stopped.
- 3. Aerosol drift: Should aerosol migration or drift off spray irrigation field occur, the application of treated wastewater shall be reduced, altered and/or terminated as is required to eliminate the drift.
- 4. The odour misters should be operated as required once the ice is off of the ponds and up to freezing conditions.
- 5. Ground conditions: the ground shall not be frozen or snow covered during effluent application.
- 7. The Owner shall maintain the separation distances listed in Table 2 of Schedule C during irrigation operations.
- 8. The Owner shall not conduct any land application of effluent onto the off-site farm without demonstration to the District Manager that, with respect to any tiles located in the irrigated areas that are directed to a surface watercourse: 1) no tiles were installed; or 2) installed tiles were removed; or 3) installed tiles are plugged. Otherwise, prior to land application onto tile drained fields, a surface water monitoring program shall be approved by the Director.
- 9. The Owner shall ensure that the spray irrigation system is operated such that:
  - 1. the disposal of effluent using the application methods described in the Works; and
  - 2. the application rate shall not exceed 6 millimetre per hour for spray irrigation.
- 10. The Owner shall ensure that the application of effluent to the approved fields is carried out in a manner that maximizes evapotranspiration and allows the soil to dry out periodically.
- 11. The Owner shall ensure that whenever ponding or run-off of sprayed effluent occurs, the application of effluent to the affected area of the land application is terminated, and adequate time is allowed before resumption of the application of effluent to that area for the area to dry to a degree that would preclude immediate recurrence of ponding or run-off.
- 12. The Owner shall ensure that the sewage lagoons are located in an area that has restricted access to prevent trespass, and the lagoon berms are free of all brush and woody vegetation. Lagoon berms shall be monitored for structural integrity and any evidence of erosion, slumping, seepage, or other significant irregularities shall be immediately reported to the District Manager.
- 13. Should the measured concentration of nitrate nitrogen in any of the ground-water monitoring wells be 7.5 milligrams per litre or greater, the Owner shall stop land application of effluent within thirty (30) metres radius around the monitoring well, relocate the irrigation equipment (excluding piping) to an alternate section of irrigation land (if applicable), and not resume irrigation within thirty (30) metres radius around the affected well unless otherwise advised by the District Manager.
- 14. After every land application season, the Owner may opt to prepare and submit for approval to the Director, a report by the certified irrigation designer and/or a hydrogeological consulting firm. This report may make recommendations as to the rate, volumes, setbacks, or other design considerations of effluent that can be land applied to the approved fields. Upon review and acceptance of the recommendations of the report, the Director may consider alteration of the land application spreading limits as set under subsection 7 and 9.

## 8. MONITORING AND RECORDING

1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency

specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in Schedule D and record all results, as follows:

- 1. all samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.
- 2. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.2.
- 3. The measurement frequencies specified in Schedule D in respect to any parameter may, after one (1) year of monitoring in accordance with this Condition, be modified by the District Manager in writing.
- 4. The Owner shall include all analytical results collected pursuant to this condition in the Annual Performance Report required by Condition 10.4.
- 2. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:
  - 1. 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;
  - 2. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
  - 3. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
  - 4. for any parameters not mentioned in the documents referenced in Paragraphs 2.1 and 2.2, the written approval of the District Manager shall be obtained prior to sampling.
- 3. A continuous flow measuring device shall be installed and maintained to measure the flow rate of raw water entering the plant through the water supply system. The flow measuring device shall be maintained with an accuracy to within plus or minus 10 per cent of the actual flow rate for the entire design range of the flow measuring device and the Owner shall measure, record and calculate the flow rate entering the facultative lagoon for each effluent stream on each day of sampling.
- 4. The Owner shall retain for a minimum of three (3) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

## 9. LIMITED OPERATIONAL FLEXIBILITY

- 1. The Owner may make pre-authorized modifications to the sewage pumping stations and Sewage Treatment Plant in Works in accordance with the document "Limited Operational Flexibility Protocol for Pre-Authorized Modifications to Municipal Sewage Works" (Schedule E), as amended, subject to the following:
  - 1. the modifications will not involve the addition of any new treatment process or the removal of an existing treatment process, including chemical systems, from the liquid or solids treatment trains as originally designed and approved.
  - 2. the scope and technical aspects of the modifications are in line with those delineated in Schedule E and conform with the Ministry's publication "Design Guidelines for Sewage

- Works 2008", as amended, Ministry's regulations, policies, guidelines, and industry engineering standards;
- 3. the modifications shall not negatively impact on the performance of any process or equipment in the Works or result in deterioration in the Final Effluent quality;
- 4. where the pre-authorized modification requires notification, a "Notice of Modifications to Sewage Works" (Schedule E), as amended shall be completed with declarations from a Licensed Engineering Practitioner and the Owner and retained on-site prior to the scheduled implementation date. All supporting information including technical memorandum, engineering plans and specifications, as applicable and appropriate to support the declarations that the modifications conform with LOF shall remain on-site for future inspection.
- 2. The following modifications are not pre-authorized under Limited Operational Flexibility:
  - 1. Modifications that involve addition or extension of process structures, tankages or channels;
  - 2. Modifications that involve relocation of the Final Effluent outfall or any other discharge location or that may require reassessment of the impact to the receiver or environment;
  - 3. Modifications that involve addition of or change in technology of a treatment process or that may involve reassessment of the treatment train process design;
  - 4. Modifications that require changes to be made to the emergency response, spill prevention and contingency plan; or
  - 5. Modifications that are required pursuant to an order issued by the Ministry.

#### 10. **REPORTING**

- 1. The Owner shall report to the District Manager or designate, any exceedance of any parameter specified in Condition 7.13 orally, as soon as reasonably possible, and in writing within seven (7) days of sample results showing the exceedance.
- 2. The Owner shall, within fifteen (15) days of occurrence of a spill within the meaning of Part X of the EPA, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation, in addition to fulfilling the requirements under the EPA and O. Reg. 675/98 "Classification and Exemption of Spills and Reporting of Discharges".
- 3. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff, Source Protection Authority and any other parties identified in the Source Protection Plans.
- 4. The Owner shall prepare and submit a performance report to the District Manager on an annual basis by March 1 of each year. The reports shall contain, but shall not be limited to, the following information:
  - 1. a summary and interpretation of all monitoring data and a comparison to the effluent objectives outlined in Condition 5, including an overview of the success and adequacy of the sewage works;
  - 2. a description of any operating problems encountered and corrective actions taken, including meeting objectives outlined in Condition 5;
  - 3. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the sewage works;

- 4. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- 5. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- 6. a tabulation of the operation of the wastewater land application system, including dates and hours of operation, irrigation areas utilized, rates of effluent application, and volumes of effluent applied;
- 7. a tabulation of the volume of sludge removed in the reporting period, and a summary of the locations to where the sludge was disposed;
- 8. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- 9. a summary of the ground water monitoring results;
- 10. a summary of all spill or abnormal discharge events;
- 11. any modifications to the irrigation plan approved by the District Manager and prepared by a Certified Irrigation Designer as certified by one of the Irrigation Associations; and
- 12. any other information the District Manager requires from time to time.

## 11. CERTIFICATE OF REQUIREMENT

1. Pursuant to Section 197 of EPA, no person having an interest in the Property, shall deal with the Property in any way without first giving a copy of this Approval to each person acquiring an interest in the Property as a result of the dealing.

### 2. The Owner shall:

- 1. within sixty (60) days of the date of the issuance of this Approval, submit to the Director for their review, two copies of a completed Certificate of Requirement and a registerable description of the Property; and
- 2. within ten (10) calendar days of receiving the Certificate of Requirement authorized by the Director, register the Certificate of Requirement in the appropriate Land Registry Office on title to the Property and submit to the Director the duplicate registered copy immediately following registration.
- 3. For the purposes of this condition, Property shall mean the property located at 3855 Line 4, Bradford West Gwillimbury Town, County of Simcoe, Ontario, L3Z 2A4.

## **Section 4: Reasons**

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

- 1. Condition 1 regarding general provisions is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.
- 2. Condition 2 regarding change of Owner is included to ensure that the Ministry records are kept accurate and current with respect to ownership of the Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

- 3. Condition 3 regarding change of the process or process materials is included to ensure that the Ministry records are kept current with respect the processes or process materials in the Owner's enterprise serviced by the Works, to ensure that any contemplated changes in them which could potentially affect the characteristics of effluent from the Works will be properly reviewed and approved.
- 4. Condition 4 regarding construction of Proposed Works/record drawings is included to ensure that the Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction to ensure the ongoing protection of the environment, and to ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
- 5. Condition 5 regarding design objectives is imposed to establish non-enforceable design objectives to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
- 6. Condition 6 regarding operation and maintenance is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.
- 7. Condition 7 regarding land application operation and monitoring is included to ensure that the operation of the land application system is undertaken in such a manner as to minimize any off-property impacts.
- 8. Condition 8 regarding monitoring and recording 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.
- 9. Condition 9 regarding Limited Operational Flexibility is included to ensure that the Works are constructed, maintained and operated in accordance with the Approval, and that any pre-approved modification will not negatively impact on the performance of the Works.
- 10. Condition 10 regarding reporting is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for this Approval.
- 11. Condition 11 regarding certificate of requirement is included in order to require the Owner to give notice of this Approval to potential future Owners of the property before the property is dealt with.

### **Section 5: Schedules**

• Schedule A

Application for Environmental Compliance Approval submitted by Cericola Farms Limited received on August 29, 2019 for the proposed modifications to increase the treatment capacity of existing sewage Works, including Environmental design report, final plans and specifications.

**Table 1 - Effluent Objectives for Land Spraying Application** 

Effluent Parameter	Averaging Calculator	Objective (milligrams per litre unless otherwise indicated)
CBOD5	Single Sample Concentration	50.0
Total Suspended Solid	Single Sample Concentration	60.0
Fats, Oil and Grease (FOG)	Single Sample Concentration	15.0

## • Schedule C

**Table 2 - Separation Distances during Irrigation Operations** 

On-site residence with written approval from the occupant	50 metres
Residence	90 metres
Surface Watercourse (measured from the top of the bank)	50 metres
Dug or Abandoned Well	90 metres
Drilled Well (less than 15 metres deep)	90 metres
Onsite Monitoring Well	15 metres
Drilled Well	15 metres

## • Schedule D

**Table 3 – Influent Monitoring (sampling point at the inlet of the Aerated Lagoon)** 

Influent Parameter	Sample Type (during hours of operation)	Frequency
BOD5	Grab	Monthly
Total Suspended Solid	Grab	Monthly
Total Phosphorus	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly
FOG	Grab	Monthly

Table 4 – Effluent Monitoring (sampling point at the outlet of Polishing/Holding Lagoon)

Effluent Parameter	Sample Type (see Note below)	Frequency
CBOD5	Grab	Monthly
Total Suspended Solid	Grab	Monthly
Total Phosphorus	Grab	Monthly
Total Ammonia Nitrogen	Grab	Monthly
Nitrate Nitrogen	Grab	Monthly
Oil and Grease	Grab	Monthly
рН	Grab	Monthly
Temperature	Grab	Monthly

Note: Commencing two months before the irrigation season and terminating at the end of the irrigation season

**Table 5 – Groundwater Monitoring** 

Sampling Wells	All observation wells in the irrigation areas and norther of the irrigation areas identified in the Irrigation Plan dated October 20, 2015 and updated on February 12, 2020
Frequency	one (1) sample from each sampling well prior to the application of the treated effluent from the polishing lagoon; and one (1) sample from each sampling well after each land application season
Sample Type	Grab
Parameters	Total Nitrogen, Total Kjeldahl (TKN), Ammonia-Nitrogen, Total Phosphorous, Conductivity, pH, and Water level in each well

#### Schedule E

## **Limited Operational Flexibility**

## Protocol for Pre-Authorized Modifications to Municipal Sewage Works

#### 1. General

- 1. Pre-authorized modifications are permitted only where Limited Operational Flexibility has already been granted in the Approval and only permitted to be made at the pumping stations and sewage treatment plant in the Works, subject to the conditions of the Approval.
- **2.** Where there is a conflict between the types and scope of pre-authorized modifications listed in this document, and the Approval where Limited Operational Flexibility has been granted, the Approval shall take precedence.
- **3.** The Owner shall consult the District Manager on any proposed modifications that may fall within the scope and intention of the Limited Operational Flexibility but is not listed explicitly or included as an example in this document.
- **4.** The Owner shall ensure that any pre-authorized modifications will not:
  - 1. adversely affect the hydraulic profile of the Sewage Treatment Plant or the performance of any upstream or downstream processes, both in terms of hydraulics and treatment performance;
  - 2. result in new Overflow or Bypass locations, or any potential increase in frequency or quantity of Overflow(s) or Bypass(es).
  - **3.** result in a reduction in the required Peak Flow Rate of the treatment process or equipment as originally designed.

#### 2. Modifications that do not require pre-authorization:

- 1. Sewage works that are exempt from Ministry approval requirements;
- **2.** Modifications to the electrical system, instrumentation and control system.
- 3. Pre-authorized modifications that do not require preparation of "Notice of Modification to Sewage Works"

- 1. Normal or emergency maintenance activities, such as repairs, renovations, refurbishments and replacements with Equivalent Equipment, or other improvements to an existing approved piece of equipment of a treatment process do not require pre-authorization. Examples of these activities are:
- 2. Repairing a piece of equipment and putting it back into operation, including replacement of minor components such as belts, gear boxes, seals, bearings;
- **3.** Repairing a piece of equipment by replacing a major component of the equipment such as motor, with the same make and model or another with the same or very close power rating but the capacity of the pump or blower will still be essentially the same as originally designed and approved;
- **4.** Replacing the entire piece of equipment with Equivalent Equipment.
- **5.** Improvements to equipment efficiency or treatment process control do not require pre-authorization. Examples of these activities are:
  - 1. Adding variable frequency drive to pumps;
  - **2.** Adding on-line analyzer, dissolved oxygen probe, ORP probe, flow measurement or other process control device.

# 4. Pre-Authorized Modifications that require preparation of "Notice of Modification to Sewage Works"

## 1. Pumping Stations

- Replacement, realignment of existing sewers including manholes, valves, gates, weirs and associated appurtenances provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as originally approved.
- **2.** Extension or partition of wetwell to increase retention time for emergency response and improve station maintenance and pump operation;
- **3.** Replacement or installation of inlet screens to the wetwell;
- **4.** Replacement or installation of flowmeters, construction of station bypass;
- 5. Replacement, reconfiguration and modifications to pump suctions and discharge pipings including valve, gates, motors, variable frequency drives and associated appurtenances to maintain firm pumping capacity or modulate the pump rate provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head or an increase in the peak pumping rate of the pumping station as originally designed;
- **6.** Replacement, realignment of existing forcemain(s) including valves, gates, and associated appurtenances provided that the modifications will not reduce the flow capacity or increase the total dynamic head and transient in the forcemain.

## 2. Sewage Treatment Plant

## 1. Sewers and appurtenances

1. Replacement, realignment of existing sewers (including pipes and channels), including manholes, valves, gates, weirs and associated appurtenances within the a sewage treatment plant, provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as

originally approved and that the modifications will remove hydraulic bottlenecks or improve the conveyance of sewage into and through the Works.

## 2. Flow Distribution Chambers/Splitters

 Replacement or modification of existing flow distribution chamber/splitters or construction of new flow distribution chamber/splitters, including replacements or installation of sluice gates, weirs, valves for distribution of flows to the downstream process trains, provided that the modifications will not result in a change in flow distribution ratio to the downstream process trains as originally designed.

### 3. Preliminary Treatment System

- Replacement of existing screens and grit removal units with equipment of the same or higher process performance technology, including where necessary replacement or upgrading of existing screenings dewatering washing compactors, hydrocyclones, grit classifiers, grit pumps, air blowers conveyor system, disposal bins and other ancillary equipment to the screening and grit removal processes.
- 2. Replacement of channel aeration systems, including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers.

## 4. Primary Treatment System

- 1. Replacement of existing sludge removal mechanism, including sludge chamber;
- 2. Replacement of scum removal mechanism, including scum chamber;
- 3. Replacement of primary sludge pumps, scum pumps, provided that: the modifications will not result in a reduction in the firm pumping capacity or discharge head that the primary sludge pump(s) and scum pump(s) are originally designed to handle.

#### 5. Secondary Treatment System

## 1. Biological Treatment

- Conversion of complete mix aeration tank to plug-flow multi-pass aeration tank, including modifications to internal structural configuration;
- 2. Addition of inlet gates in multi-pass aeration tank for step-feed operation mode;
- 3. Partitioning of an anoxic/flip zone in the inlet of the aeration tank, including installation of submersible mixer(s);
- 4. Replacement of aeration system including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers, provided that the modifications will not result in a reduction in the firm capacity or discharge pressure that the blowers are originally designed to supply or in the net oxygen transferred to the wastewater required for biological treatment as originally required.

### 6. Secondary Sedimentation

1. Replacement of sludge removal mechanism, including sludge chamber;

- 2. Replacement of scum removal mechanism, including scum chamber;
- 3. Replacement of return activated sludge pump(s), waste activated sludge pump(s), scum pump(s), provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head that the activated sludge pump(s) and scum pump(s) are originally designed to handle.

## 7. Post-Secondary Treatment System

1. Replacement of filtration system with equipment of the same filtration technology, including feed pumps, backwash pumps, filter reject pumps, filtrate extract pumps, holding tanks associated with the pumping system, provided that the modifications will not result in a reduction in the capacity of the filtration system as originally designed.

## 8. Disinfection System

#### 1. UV Irradiation

1. Replacement of UV irradiation system, provided that the modifications will not result in a reduction in the design capacity of the disinfection system or the radiation level as originally designed.

## 2. Chlorination/Dechlorination and Ozonation Systems

- Extension and reconfiguration of contact tank to increase retention time for effective disinfection and reduce dead zones and minimize short-circuiting;
- 2. Replacement of chemical storage tanks, provided that the tanks are provided with effective spill containment.

### 9. Supplementary Treatment Systems

### 1. Chemical systems

- 1. Replacement or relocation of chemical storage tanks for existing chemical systems only, provided that the tanks are sited with effective spill containment;
- 2. Replacement of chemical dosing pumps provided that the modifications will not result in a reduction in the firm capacity that the dosing pumps are originally designed to handle.
- Relocation and addition of chemical dosing point(s) including chemical feed pipes and valves and controls, to improve phosphorus removal efficiency;
- 4. Use of an alternate chemical provided that it is a non-proprietary product and is a commonly used alternative to the chemical approved in the Works, provided that the chemical storage tanks, chemical dosing pumps, feed pipes and controls are also upgraded, as necessary.

### 10. Sludge Management System

1. Sludge Holding and Thickening

 Replacement of sludge holding tanks, sludge handling pumps, such as transfer pumps, feed pumps, recirculation pumps, provided that modifications will not result in reduction in the solids storage or handling capacities;

## 2. Sludge Digestion

- 1. Replacement of digesters, sludge handling pumps, such as transfer pumps, feed pumps, recirculation pumps, provided that modifications will not result in reduction in the solids storage or handling capacities;
- 2. replacement of sludge digester covers.

## 3. Sludge Dewatering and Disposal

1. Replacement of sludge dewatering equipment, sludge handling pumps, such as transfer pumps, feed pumps, cake pumps, loading pumps, provided that modifications will not result in reduction in solids storage or handling capacities.

## 11. Standby Power System

1. Replacement or installation of standby power system, including feed from alternate power grid, emergency power generator, fuel supply and storage systems, provided that the existing standby power generation capacity is not reduced.

#### 12. Lagoons

- 1. installing baffles in lagoon provided that the operating capacity of the lagoon system is not reduced;
- 2. raise top elevation of lagoon berms to increase free-board;
- 3. replace interconnecting pipes and chambers between cells, provided that the process design operating sequence is not changed;
- 4. replace mechanical aerators, or replace mechanical aerators with diffused aeration system provided that the mixing and aeration capacity are not reduced;
- 5. removal of accumulated sludge and disposal to an approved location offsite.

### 3. Final Effluent Disposal Facilities

 Replacement or realignment of the Final Effluent channel, sewer or forcemain, including manholes, valves and appurtenances from the end of the treatment train to the discharge outfall section, provided that the sewer conveys only effluent discharged from the Sewage Treatment Plant and that the replacement or re-aligned sewer has similar dimensions and performance criteria and is in the same or approximately the same location and that the hydraulic capacity will not be reduced.

**Note:** A digital copy of the form entitled "Notice of Modification to Sewage Works" can be obtained from the District Manager.

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, Conservation and

Parks

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 12th day of November, 2020

c: Anthony Cericola William Lacourt

Fariha Parnu.

Fariha Pannu Director

Appointed for the purposes of Part II.1 of the **Environmental Protection Act**