

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 0751-BP3SCT  
Issue Date: June 16, 2020

Laplante Poultry Farms Ltd.  
3105 Dunning Rd  
Sarsfield, Ontario  
K0A 3E0

Site Location: 17141 Rombough Road  
Part of Lot 15, Concession 2, Reference Plan 52R-2304  
Township of North Stormont, United Counties of Stormont, Dundas and Glengarry  
K0C 1V0

*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 of a year-round operated Laplante Poultry Sewage Treatment Plant and a Shallow Buried Trench subsurface disposal system with a Rated Capacity of 65 m<sup>3</sup>/day, for the collection, treatment and disposal of the poultry wastewater generated from processing annual average approximately 4,000 hens / day (peak day approximately 6,500 hens/day), and sanitary sewage generated from 30 employees at Laplante Poultry Farms Ltd.; and an existing domestic sewage septic subsurface disposal system with a maximum day design capacity of 1,100 L/day servicing a 2-bedroom dwelling, at the above location. The Works consist of the following:

**PROPOSED WORKS**

**Laplante Poultry Sewage Treatment Plant (STP)**

a mechanical sewage treatment plant, with a Rated Capacity of 65 m<sup>3</sup>/d, consisting of the following:

Flow Equalization (Tank 2)

- located upstream of the Dissolved Air Flootation (DAF) and operated 7 days per week, 24 hours per day, year-round;
- designed for a peak day capacity of 91 m<sup>3</sup>/d to produce a balanced flow of no greater than 65 m<sup>3</sup>/d on average day basis;
- consisting of four (4) covered, hydraulic-connected, and insulated precast concrete tanks (Tank 2a,

2b, 2c and 2d), arranged in parallel, having a total storage volume of 169 m<sup>3</sup>: each tank complete with access manhole(s) and each with a nominal capacity of 42.25 m<sup>3</sup> measured at approximately 6.1 m long x 3.1 m wide x 3.5 m high, located outdoors and installed partially in-ground;

- dosed with Sodium Bicarbonate for alkalinity supplementation in treatment process, as needed;
- receiving flow from the Existing Settling Tanks as well as the returned activated sludge flow from Tank 8 (Effluent Settling Tank) at a rate up to 2~3 times of design flow rate;
- equipped with two (2) submersible pumps (1 duty 1 standby, Zoeller model E153, or approved equivalent) in one of the three (3) tanks: each pump rated 170 L/min at 6.1 m TDH, activation controlled by floats and operated on timer every 30 minutes at approximately 1354.2 L/cycle, and 48 cycles per 24-hour period;
- complete with high level alarm, pumping sewage flow to DAF unit.

#### Dissolved Air Flootation (DAF) - Tank 3

- operated 12 hours per day 5 days per week, year-round;
- designed for a peak day capacity of 79 m<sup>3</sup>/day (or 6.6 m<sup>3</sup>/h);
- configured to a full-flow type DAF stainless steel unit with dimensions of approximately 4.3 m x 2.0 m x 2.0 m, completely enclosed in a stand alone DAF building adjacent to the proposed Flow Equalization unit process, discharging by gravity to Tank 4 (ARMR); and
- dosed with polymer for coagulation, as needed. Polymer selection and dosage to be determined during STP commissioning.

#### Anaerobic / Anoxic Pre-treatment (ARMR: Tank 4)

- operated 7 days per week, 24 hours per day, year-round;
- located outdoors and partially buried;
- receiving pumped influent up to 2.71 m<sup>3</sup>/h fed by a split header from Tank 3, as well as receiving recycled flow up to 8.13 m<sup>3</sup>/h ( 2~3 times design flow) from the outlet of the Aerobic Fixed Media Reactor (Tank 5); to provide 5-hour hydraulic retention time (HRT); discharging by gravity to the Aerobic Fixed Media Reactor (Tank 5);
- including three (3) Anoxic Random Media Reactors - ARMR (Tank 4a, Tank 4b, and Tank 4c) arranged in parallel: each tank 18.6 m<sup>3</sup> measured at approximately 5.2 m x 2.6 m x 2.1 m, filled with 18 m<sup>3</sup> of PVC random packed floating media with a specific surface area of 107 m<sup>2</sup>/m<sup>3</sup>, and complete with cover and access manhole(s); each tank equipped with two (2) 0.5-hp mixer pump rated 170 L/min at 6.1 m TDH (Zoeller model E153, or approved equivalent); the six pumps running in alternating ON/OFF mode to promote anoxic/anaerobic mixing/recirculation conditions for BOD removal and denitrification,

#### Prefabricated Sewage Package Treatment System

a Delta ECOPOD (Model E2400-D) submerged attached growth sewage treatment system, with a Rated

Capacity of 65 m<sup>3</sup>/day, operated 7 days per week, 24 hours per day, year-round, consisting of:

- Stage 1 - Aerobic Fixed Media Reactor (Tank 5)
  - designed for BOD removal and complete nitrification and provided with a total HRT of 2.1 days;
  - three (3) tanks (Tank 5a, Tank 5b, and Tank 5c) arranged in parallel with flow distribution via a distribution box, filled with engineered fixed plastic media with a specific surface area of 168 m<sup>2</sup>/m<sup>3</sup>, with a total media volume of 22 m<sup>3</sup>: each tank 45.7 m<sup>3</sup> measured at 3.5 m x 6.1 m x 3.1 m; complete with cover and access manhole(s);
  - air supplied by three (3) 3 hp positive displacement (PD) blowers (all duty, with spare parts on shelf, Sutorbilt Model 4M, or approved equivalent) housed in a new Blower Building: each blower rate for 266 feet<sup>3</sup> / min; and air distributed through fine bubble diffusers installed at 3 m liquid depth in the reactor; and
  - discharging through v-notch overflow weirs by gravity to the Anoxic / Anaerobic Denitrification Tank (Tank 6).
- Stage 2 - Anoxic / Anaerobic Denitrification Tank (Tank 6) - EcoPod Denitrification Reactor
  - designed for post denitrification;
  - one (1) 23 m<sup>3</sup> tank, measured at 5.2 m x 2.6 m x 2.6 m; complete with cover and access manhole(s); filled with 14 EcoPod fixed media blocks with a total media volume of 7 m<sup>3</sup>;
  - equipped with two (2) 2-hp submersible mixer pumps (1 duty 1 standby, Zoeller model E153, or approved equivalent), and with one (1) 2 hp submersible recirculation pump (Zoeller model E153, or approved equivalent) to return mixed liquor at 8.1 m<sup>3</sup>/h to Tank 4; each pump rated 170 L/min at 6.1 m TDH;
  - equipped with fine bubble diffusers for reactor aeration as needed in contingency; air supplied by the third 3 hp PD blower;
  - overflow through outlet weirs by gravity to Tank 7; and
  - supplemented with readily biodegradable carbon source (Micro C) to the feedline to Tank 6.
- Stage 3 - Aerobic Polishing Reactor (Tank 7)
  - one (1) 13.9 m<sup>3</sup> tank complete with a lid and access manhole(s), the tank measured at 5.2 m x 2.6 m x 1.7 m; filled with 7 EcoPod fixed media blocks with a total media volume of 3.2 m<sup>3</sup>;
  - equipped with one (1) submersible pump recirculating flow to Flow Equalization Tank (Tank 2), ON/OFF controlled by floats;
  - equipped with air diffuser system for aeration for residual BOD removal; air supplied by a PD blower housed in the Blower Building; and
  - discharge through outlet weir to Tank 8.

### Effluent Settling Tank (Tank 8)

- one (1) 13.9 m<sup>3</sup> tank measured at 5.2 m x 2.6 m x 1.7 m, complete with cover and access manhole(s); receiving treated effluent by gravity from Tank 7;
- equipped with one (1) pump (Zoeller model E153, or approved equivalent) rated 170 L/min at 6.1 m TDH, recirculating flow up to 3 times the design flow to Tank 2;
- equipped with two (2) submersible 0.5 hp pumps (1 duty and 1 standby) Zoeller model E191, or approved equivalent), ON/OFF controlled by floats: each pump rated 1354.2 L/cycle (30 mins) at 27.4 m TDH, pumping treated effluent via a 100 mm diameter force main to the proposed Subsurface Disposal System on a 30-minute cycle (cycle controlled by timer) to matching the pumping cycle and outflow of Flow Equalization Tank (Tank 2) for flow balancing across the system; and
- installed with one (1) flow meter on the 100 mm diameter forcemain discharging to the Shallow Buried Trenches System.

### Chemical Feed Systems

- a Biologic SR2<sup>®</sup> chemical storage and feed system (Biologic SR2<sup>®</sup> is micro-nutrient claimed to be able to break down FOG (Fat Oil Grease), reduce odour and sludge generation) housed in the DAF Building, consisting of one (1) 210-L chemical feed tank and one (1) variable speed peristaltic chemical dosing pump rated at 50 L/day, feeding to either an existing Grease Trap or the proposed DAF facility (dosing location to be determined in start-up and commissioning of the Works);
- a Sodium Bicarbonate chemical storage and feed system for alkalinity supplement to treatment process to promote nitrification, consisting of one (1) 210-L chemical feed / storage tank and one (1) variable speed peristaltic chemical dosing pump rated at 50 L/day, housed in the Blower Building; and
- a Micro C chemical storage and feed system for external carbon supplement to the treatment process to promote denitrification at the Denitrification Reactor (Tank 6), consisting of one (1) 210-L chemical feed tank and one (1) variable speed peristaltic chemical dosing pump, housed in the Blower Building.

### Upgrade of the Existing Above-ground Sewage Storage Tank

- Installation of high level monitoring and alarm system to the existing 27 m<sup>3</sup> above-ground Sewage Storage Tank.

### Subsurface Disposal Facility

one (1) in-ground Shallow Buried Trenches (SBT) System, with a Rated Capacity of 65 m<sup>3</sup>/day, located along with the west property line and in the north-west corner of the property, operated year-round, 7 days per week, 24 hours per day, consisting of:

- one (1) 6-way hydrotek indexing valve, receiving treated effluent from the STP and equally distributing flow via a 50 mm diameter pressure header system to six (6) equally-sized cells with a total loading

area of 4,500 m<sup>2</sup> and a total length of 866 m shallow buried trenches, sitting on native soil with a percolation T-time of estimated 3 cm/min: six (6) cells consisting of ten (10) in-ground 15 m long plastic chambers (Cultec Chamber, Model EZ-24) enclosed in the trenches with the bottom of the trenches be vertically separated from high groundwater table for at least 900 mm, spaced at 5 m from chamber centre to chamber centre; each chamber housing a 25 mm diameter pressurized perforated PVC distribution lateral; the pressure head at the most distant point in the distribution pipe system shall not be less than 600 mmH<sub>2</sub>O; the SBT setup shall adequately protect the valves, piping and chambers from frost attack in severe winter condition.

### Decommissioning

upon commissioning of the proposed packaged STP and Shallow Buried Trench System, decommissioning and complete removal from the site the existing septic leaching bed system originally serving the poultry processing facility, including,

- the piping to the existing 4,000-gallon septic tank (the existing 4,000-gallon septic tank to be re-used as an emergency overflow tank);
- header and perforated distribution pipes (12 runs of 50 m long pipe) in the existing leaching bed system;
- 27 m<sup>3</sup> above-ground Sewage Storage Tank.

### **EXISTING WORKS**

#### **Preliminary Treatment Unit Processes of the Proposed Laplante Poultry Sewage Treatment Plant (STP)**

- A Grease Trap, having a capacity of approximately 2 m<sup>3</sup>, located indoors at the Process Building; discharging flow by gravity to Tank 1;
- A 7.5 m<sup>3</sup> in-ground concrete Primary Settling Tank (Tank 1), complete with cover and access manholes, discharging by gravity to Tank 2;
- A 15 m<sup>3</sup> in-ground concrete Primary Settling Tank (Tank 2), complete with cover and access manholes, equipped with two (2) 0.5 hp submersible pumps (1 duty 1 standby), discharging by gravity to the proposed DAF process; and
- An existing underground emergency overflow Tank converted from the existing 4,000-gallon septic tank, complete with cover and access manholes, act as standby for the Primary Settling Tanks, prepared for temporary storage of sewage to accommodate Primary Settling Tanks maintenance need, pursuant to Condition 8(1).

#### **Domestic Sewage Septic Disposal System**

installed in year 2018 to serve an existing 2-bedroom bungalow, replacing an old septic system installed in 1971. The year 2018 domestic septic system consists of,

- one (1) 3,000 L precast concrete septic tank complete with cover and access manholes, and an effluent filter;
- an in-ground tile bed with an estimated design capacity of 1,100 L/day, having a loading area of

approximately 135 m<sup>2</sup>, complete with six (6) runs of 15 m perforated distribution pipes spaced at 2.0 m from centre to centre, underlain by 300 mm thick sandy loam native soil with a percolation T-time of approximately 20 cm/min.

including all other mechanical system, electrical system, instrumentation and control system, standby power system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only;

all in accordance with the submitted supporting documents listed in Schedule "A" forming part of this Approval.

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

1. "Approval" means this entire document and any schedules attached to it, and the application;
2. "District Manager" means the District Manager of the Ottawa District Office and / or Area Manager of the Cornwall Area Office of the Ministry;
3. "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;
4. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
5. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
6. "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;
7. "Owner" means Laplante Poultry Farms Ltd., and its successors and assignees;
8. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;
9. "Partial Treatment" means any treatment that does not include the full train of unit processes of the sewage treatment process described and approved in the Approval;
10. "Professional Engineer" means a person entitled to practice as a Professional Engineer in the Province of Ontario under a licence issued under the *Professional Engineers Act* ;
11. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
12. "Rated Capacity" means the annual average daily sewage flow for which the sewage treatment plant is designed to handle;
13. "Substantial Completion" has the same meaning as "substantial performance" in the *Construction Lien Act*;
14. "Works" means the approved sewage works, and includes Proposed Works, and Existing Works.

*You are hereby notified that this environmental compliance approval is issued to you subject to the terms and*

conditions outlined below:

## TERMS AND CONDITIONS

### 1. GENERAL PROVISIONS

- (1) The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- (2) Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.
- (3) Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
- (4) Where there is a conflict between the documents listed in the Schedule A, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
- (5) The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.
- (6) The issuance of, and compliance with the conditions of, this Approval **does not**:
  - (a) relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approval from the local conservation authority necessary to construct or operate the sewage Works; or
  - (b) limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

### 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:
  - (a) change of Owner or operating authority, or both;
  - (b) change of address of Owner or operating authority;
  - (c) change of partners where the Owner or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act*;
  - (d) change of name of the corporation where the Owner or operator is or at any time becomes a

corporation, and a copy of the most current "Initial Notice or Notice of Change" (Form 1, 2 or 3 of O. Reg. 189, R.R.O. 1980, as amended from time to time), filed under the *Corporations Information Act* , shall be included in the notification to the District Manager;

(2) In the event of any change in ownership of the Works, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager.

3. COMPLETION OF PROPOSED WORKS

(1) The Owner shall ensure that the design and construction of the Proposed Works is supervised by a Professional Engineer.

(2) Upon construction of the Proposed Works, the Owner shall prepare a statement, certified by a Professional Engineer, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry staff.

(3) Within six (6) months of the construction of the Proposed Works, a set of as-built drawings showing the Works "as constructed" shall be prepared. These drawings shall be kept up to date through revision undertaken from time to time and a copy shall be retained for the operational life of the Works.

(4) All 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 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(s).

4. DESIGN 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.

<b>Table 1 - Design Objectives</b>	
Effluent Parameter	Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2
CBOD5	10.0
Total Suspended Solids (TSS)	10.0
Total Nitrogen (ammonia+nitrate+nitrite)	4.0
Oil and Grease	15.0
Chloride	250
Hydrogen Ion (pH)	6.5 ~ 8.5 (no units), inclusive, at all times



- (2) For the purposes of determining exceedance with Subsection (1),
- (a) exceedance with respect to a Concentration objective is deemed to have occurred when any single grab sample analyzed for a parameter named in Column 1 of Subsection (1) is greater than the corresponding concentration set out in Column 2 of Subsection (1);
  - (b) exceedance with respect to pH objective is deemed to have occurred when any single measurement is outside of the stated range outlined in the Table 1.
- (3) The Owner shall make best efforts at all time to operate the Laplante Poultry STP and the Shallow Buried Trench system within the Rated Capacity.

5. COMPLIANCE LIMITS

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

<b>Table 2 - Effluent Limits</b>		
Effluent Parameter	Daily Maximum Concentration (milligrams per litre unless otherwise indicated)	Monthly Average Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2	Column 3
CBOD5 *	20	10
Total Suspended Solids *	20	10
Total Nitrogen ** (Ammonia+Nitrate+Nitrite)	-	4.0
Chloride **	-	250
pH *	6.0 to 9.5 (no units), inclusive, at all times	

\* applicable upon Substantial Completion of all the Proposed Works.

\*\* come into affect two (2) years after start-up of the Works.

- (2) For the purposes of determining compliance with and enforcing Subsection (1):
- (a) non-compliance with respect to a Concentration Limit / Daily Maximum Concentration is deemed to have occurred when any single sample analyzed for a parameter named in Column 1 of Table 2 in Subsection (1) is greater than the corresponding maximum concentration set out in Column 2 of the table;
  - (b) non-compliance with respect to a Monthly Average Concentration limit is deemed to have occurred when the arithmetic mean concentration of all samples taken in a month, analyzed for a parameter named in Column 1 of Table 2 in Subsection (1) is greater than the corresponding monthly average concentration set out in Column 3 of the table;
  - (c) non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the stated range outlined in Table 2.

6. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the sewage 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) Definitions for sampling frequency:

- (a) Weekly means once every week;
- (b) Bi-weekly means once every two (2) weeks;
- (c) Monthly means once every month; and
- (d) Quarterly means once every three (3) months.

(3) Samples shall be collected and analyzed at the following sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed:

(a) Influent Monitoring

<b>Table 3 - Influent Monitoring</b>		
Sampling Location: inlet of the existing 2 m <sup>3</sup> Grease Trap		
Influent Parameter	Monitoring Frequency*	Sample Type
BOD5	Weekly	Grab
Total Suspended Solids (TSS)	Weekly	Grab
Total Phosphorus (TP)	Weekly	Grab
Total Ammonia Nitrogen (TAN)	Weekly	Grab
Total Kjeldahl Nitrogen (TKN)	Weekly	Grab
Fat, Oil and Grease (FOG)	Weekly	Grab
Alkalinity	Weekly	Grab
Chloride	Weekly	Grab
Hydrogen Ion (pH)	Weekly	Grab

\* monitoring frequency of the parameters could be reduced to Monthly or Quarterly after twelve (12) months of monitoring and the effluent is found in continuous compliance in general. Commencement of the proposed reduction of monitoring frequency subject to approval of the District Manager and Subsection (11). However, should there found two (2) consecutive non-compliance in effluent sample results, the Owner shall return to Weekly sampling until such time that the effluent comes to compliance again.

(b) Effluent Monitoring

<b>Table 4 - Effluent Monitoring</b>		
Sampling Location: the Laplante Poultry STP Effluent Settling Tank (Tank 8)		
Effluent Parameter	Monitoring Frequency*	Sample Type
CBOD5	Weekly	Grab
TSS	Weekly	Grab
TAN	Weekly	Grab
TKN	Weekly	Grab
Nitrate and Nitrite Nitrogen	Weekly	Grab
TP	Weekly	Grab
FOG	Weekly	Grab
Chloride	Weekly	Grab
pH	Weekly	Grab

\* monitoring frequency of the parameters could be reduced to Bi-weekly or Monthly after twelve (12) months of monitoring and the effluent is found in continuous compliance in general. Commencement of the proposed reduction of monitoring frequency subject to approval of the District Manager and Subsection (11). However, should there found two (2) consecutive non-compliance in effluent sample results, the Owner shall return to Weekly sampling until such time that the effluent comes to compliance again.

(c) Groundwater Monitoring

<b>Table 5 - Groundwater Monitoring</b>		
Sample Locations:		
<ul style="list-style-type: none"> <li>● the onsite water supply well;</li> <li>● MW1, MW2, MW3, MW4, MW5, MW6, MW7 and MW8 *; and</li> <li>● permanent groundwater monitoring well(s) ** located hydraulically downgradient of the proposed shallow buried trenches</li> </ul>		
Groundwater Parameter	Monitoring Frequency	Sample Type
Nitrate and Nitrite Nitrogen	Quarterly	Grab
Ammonia Nitrogen	Quarterly	Grab
Chloride	Quarterly	Grab
<i>E. coli</i> ***	Quarterly	Grab

\* MW1~MW8 locations as shown on Figure 1 of the Proposed Groundwater Monitoring Program, dated April 16, 2020, prepared by Derk Maat, P.Eng. of Maat Environmental Engineering Corp.

\*\* locations of permanent groundwater monitoring well(s) subject to approval by the District Manager.

\*\*\* monitoring of *E. coli* is for the onsite water supply well only.

(4) Within three (3) months from issuance of the Approval and prior to the Works start-up, the Owner shall submit to the District Manager an expanded groundwater monitoring program for approval. The groundwater monitoring program should cover the entire operational life of the Works including, but not limited to the period for the Works start-up and commissioning for transitional wastewater management, as well as should propose location(s) for permanent groundwater monitoring well(s) in the Laplante Poultry Farms Ltd. property, including a **dedicated compliance monitoring well** for the proposed Shallow Buried Trenches System. No less than two (2) months prior to start-up of the Proposed Works, the Owner shall establish permanent groundwater monitoring wells at the approved locations.

(a) Prior to sewage disposal to the proposed Shallow Buried Trench system, groundwater quality shall be established at the approved groundwater monitoring well(s), and have them analyzed for the parameters outlined in Table 5.

(b) The ground water and onsite well samples shall be taken quarterly for analysis in the first year and shall be sampled and analyzed semi-annually, with no two samples collected less than 6 months apart, for Year 2 to Year 5 and then sampled and analyzed annually thereafter.

(5) The static water level shall be measured quarterly at all groundwater monitoring wells and the onsite water supply well prior to collection of groundwater samples in the first year of groundwater sampling, so that the groundwater flow direction can be interpreted and reported to the District Manager. The static water level shall be measured semi-annually in Year 2 to Year 5 and then annually thereafter.

(6) The temperature and pH of the influent to and the effluent from the Proposed 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 by taking into account 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).

Exceedance of Compliance Limits during Laplante Poultry STP Effluent Monitoring

(7) In the event of effluent exceeding the compliance limits outlined in Condition 5, the Owner shall,

- (a) report to the District Manager pursuant to Condition 9 - Reporting;
- (b) implement a contingency plan pursuant to Condition 7, as needed; and
- (c) at the discretion of the District Manager, the Owner may be required to increase the frequency of effluent and / or groundwater monitoring, until it is demonstrated to the District Manager the Laplante Poultry STP is brought back to compliance, and the risk of groundwater contamination is cleared.

Exceedance during Groundwater Monitoring

(8) In the event of a single groundwater monitoring result from the dedicated compliance monitoring well exceeds total inorganic nitrogen (Ammonia Nitrogen + Nitrate Nitrogen + Nitrite Nitrogen) concentration of 2.5 mg/L or chloride concentration of 125 mg/L, the Owner shall conduct sampling of the affected groundwater monitoring well forthwith to confirm the exceedance of the compliance level(s). Upon confirmation of the exceedance, the Owner shall,

- (a) report to the District Manager pursuant to Condition 9 - Reporting;
- (b) identify potential source of contamination;
- (c) implement a contingency plan pursuant to Condition 7, as needed; and
- (d) at the discretion of the District Manager the Owner may be required to increase the frequency of groundwater monitoring until it is demonstrated to the District Manager the risk of groundwater contamination is cleared.

(9) 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;
- (b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended; and
- (c) the publication "Standard Methods for the Examination of Water and Wastewater", as amended.

(10) The Owner shall monitor and record the flow rate and daily quantity using continuous flow measuring devices calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following, and the Owner shall measure, record and calculate the flowrate for each effluent stream on each day of sampling:

- (a) Influent flow to the Laplante Poultry STP by continuous water use / sewage flow measuring device(s) and instrumentations; and
- (b) Effluent discharged from the Laplante Poultry STP by continuous flow measuring devices and instrumentations passing the sampling points under Subsection (3).

(11) 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.

## 7. 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 funding, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the Works.
- (2) The Owner shall prepare an operation manual prior to the commencement of operation of the sewage works, that includes, but not necessarily limited to, the following information:
  - (a) operating procedures for routine operation of the Works;
  - (b) inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
  - (c) repair and maintenance programs, including the frequency of repair and maintenance for all the Works; copies of maintenance contracts for any routine inspections & pump-outs should be included for all the tanks and treatment units;
  - (d) procedures for the inspection and calibration of monitoring equipment;
  - (e) a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the District Manager;
  - (i) a contingency plan specific to the proposed Laplante Poultry STP shall be prepared by a Professional Engineer and submitted, within six (6) months of the issuance of the Approval and / or prior to the Works start-up whichever comes first, for approval to the District Manager. The contingency plan shall include detailed measures of the contingency and remedial plans that will be implemented in event that a non-compliant sewage is discharged from the STP and / or contamination on the groundwater is confirmed pursuant to Conditions 5 and 6. The contingency plan shall cover the entire operational life of the Works, including, but not limited to, the transitional wastewater management during the Works start-up and commissioning. The contingency plan shall ensure the contingency and remedial measures for the Works be made readily available for implementation upon start-up, and the STP effluent disposal imposes no harm to the environment and no health and safety hazard to the public. The contingency plan for the Works shall be kept updated as part of the operation manual and made available for inspection by the Ministry staff upon request.
  - (f) a plan for reduction of salt use and elimination of brine discharge. The salt reduction and brine elimination plan for the Works shall be developed and kept updated as part of the operation manual and made available on site for inspection by the Ministry staff upon request.
  - (g) 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 through revisions undertaken from time to time and retain a copy at the location of the sewage works. Upon request, the Owner shall make the

manual available for inspection and copying by Ministry personnel.

(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 Laplante Poultry STP in accordance with Ontario Regulation 129/04).

(5) The Owner shall maintain a logbook to record the results of Operation and Maintenance activities specified in the above subsections, and shall keep the logbook at the site and make it available for inspection by the Ministry staff upon request.

(6) 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 operation and maintenance activities required by this Approval.

(7) The Owner shall operate the Laplante Poultry STP and all the onsite subsurface disposal systems such that there is no leakage, spill discharge of raw sewage, sewage from Partial Treatment and / or treated effluent from the Works to any surface waters.

(8) The Owner shall comply with the requirements of Spill Prevention, Contingency and Response Plans in accordance with O. Reg. 224/07 and other applicable provincial legislation associated with environmental emergency prevention, reporting and response plan development and implementation requirements.

#### Laplante Poultry Sewage Treatment Plant

(9) The Owner shall enter a service and maintenance agreement with the manufacturer or approved agent of the treatment system employed at the Laplante Poultry STP, for at minimum the first three (3) years of the STP operation (including start-up and commissioning), to provide the needed support in operation and performance compliance of the treatment system. The Owner shall make available for inspection by Ministry staff, such service and maintenance agreement as well as a complete set of "as constructed" drawings within six (6) months of Substantial Completion of the Works. The service and maintenance agreement and drawings must be retained at the site and kept current.

(10) The Owner shall ensure ongoing cleaning and maintenance of the existing 2m<sup>3</sup> Grease Interceptor at the Process Building for removal of FOG from the poultry process wastewater prior to entering the existing Primary Settling Tanks (Tank 1 and Tank 2).

(11) The Owner shall ensure that the Primary Settling Tanks (Tank 1 and Tank 2) are inspected at least once per year by a qualified person, and have Tank 1 pumped out weekly and have Tank 2 pumped out every 3-6 months (or more often if required) and the effluent filters are cleaned out at minimum once a year (or more often if required).

#### Subsurface Disposal Systems

(12) The Owner shall ensure that the drainage operations in all beds are visually observed on a monthly basis for any spongy, surface ponding, flooding conditions or breakouts.

(a) In the event a break-out is observed from a subsurface disposal bed, the Owner shall ensure that the sewage discharge to the bed is discontinued and the incident immediately reported verbally to the District Manager, followed by a written report within one (1) week. The Owner shall ensure that during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to a surface water body or to the environment, and safely collected and

disposed off through a licensed waste hauler to an approved waste disposal site.

(b) the Owner shall report to the District Manager promptly should there be surface ponding of a subsurface leaching bed be observed.

(13) The Owner shall ensure that grass-cutting is maintained regularly over all the subsurface disposal beds, and that adequate steps are taken to ensure that the area of the Works are protected from all forms of vehicle traffic.

## 8. SPECIAL CONDITION

(1) utilization of the existing 27 m<sup>3</sup> Sewage Storage Tank shall be on temporary needed basis and only for Primary Settling Tanks maintenance. Utilization duration should not exceed a period longer than a few hours. Contents of the 27 m<sup>3</sup> Sewage Storage Tank shall be released to the Primary Settling Tanks within the work shift once they becomes available.

(2) the Owner shall strive to complete start-up and commissioning of the STP and come to compliance within eight (8) months from the start-up date.

(a) should the Owner need more than eight (8) months for treatment performance establishment and for compliance after start-up date, the Owner can apply for extension of the commissioning period to the District Manager in writing at least two (2) weeks before the end of the 6-month period and shall obtain his written approval prior to time extension.

(3) should the Laplante Poultry STP be not able to come to compliance after two (2) year from the start-up date, the Owner shall pro-actively procure engineering and / or operational consultation for upgrade / modification to the treatment processes, process operation and / or equipment as necessary, and submit a new application in accordance with the Ministry approval protocols, for the purpose of effluent compliance.

## 9. REPORTING

(1) One (1) week prior to the start up of the operation of the Works, the Owner shall notify the District Manager (in writing) of the pending start up date.

(2) The Owner shall report to the District Manager orally any exceedance pursuant to Conditions 5 and 8 promptly, and in writing within seven (7) days of becoming aware of the exceedance.

(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, 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 District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

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

(5) The Owner shall prepare and submit a performance report, on an annual basis, within ninety (90) days following the end of each operational season to the District Manager. 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 Compliance Limits (Condition 5) including an overview of the success and adequacy of the Works;
- (b) a review and assessment of performance of sewage works, including treatment units and disposal beds;
- (c) a description of any operating problems encountered and corrective actions taken at all sewage Works located at the property;
- (d) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of all Works located at the property;
- (e) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (f) a summary and description of efforts made and results achieved in meeting the Design Objectives (Condition 4);
- (g) a summary and interpretation of all flow data and results achieved in not exceeding the Rated Capacity discharged into the subsurface disposal systems;
- (h) a summary of each batch of brine use in the reporting year, comparison with brine use in preceding years, and any operational changes planned to reduce the brine use in the coming year.
- (i) a summary and interpretation of groundwater monitoring data including shallow groundwater flow direction, interpretation of analytical results and comparison with the compliance limit of 2.5 mg/l for Nitrates concentration in accordance with the Reasonable Use Policy; And, submit groundwater status reports to the District Office in the 3rd year and the 5th year after start-up of the Works;
- (j) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (k) a summary of all leakage, spill or abnormal discharge events;
- (l) a report on decommissioning of all components of the existing sewage works;
- (m) any other information the District Manager requires from time to time;

### **Schedule "A"**

1. Application for Environmental Compliance Approval, dated December 12, 2019 and received on January 23, 2020, submitted by Maat Environmental Engineering Corp.;
2. Revised Design Basis Report for ECA Amendment for Laplante Poultry Sewage Treatment Plant along with drawings and detailed process description, dated Oct. 21, 2019 and prepared by Maat Environmental Engineering Corp.;
3. Revised Groundwater Monitoring Program for ECA Amendment for Laplante Poultry Sewage Treatment Plant dated April 16, 2020, prepared by Derk Maat, P.Eng. of Maat Environmental Engineering Corp.

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

1. Condition 1 is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted. 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.
2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to 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 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. It also ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
4. Condition 4 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 5 are exceeded.
5. Condition 5 is imposed to ensure that the effluent discharged from the Works to the environment 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.
6. Condition 6 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 environment.
7. Condition 7 is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner and made available to the Ministry. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.

8. Condition 8 is included to provide the Owner the opportunities to demonstrate to the Ministry if the proposed poultry sewage treatment system can perform as designed and can consistently in compliance upon completion of commissioning of the Proposed Works.
9. Condition 9 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).  
1621-BDWR2D issued on October 21, 2019.**

*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](http://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 16th day of June, 2020



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

YZ/

- c: Area Manager, MECP Cornwall Area Office
- c: District Manager, MECP Ottawa District Office
- Derk Matt, Maat Environmental Engineering Corp.