

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 0679-BYAU9S  
 Issue Date: April 30, 2021

2492309 Ontario Limited  
 607 Mersea Road 8  
 Leaming  
 ton, Ontario  
 N8H 3V8

Site Location: 607 Mersea Road 8  
 Leamington Municipality, County of Essex  
 N8H 3V8

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:*

establishment, usage and operation of new non-municipal sewage works, for the treatment of sanitary sewage from Double Diamond Farms and disposal of effluent to West Branch of the Reid Drain via a Sewage Treatment Plant (Double Diamond Farm Sewage Treatment Plant) and Final Effluent disposal facilities as follows:

**Details of Service Area:**

- **Type of Occupancy:** Work Camp
- **Type and Number of Units:** 240 camp workers and 60 office/warehouse employees;

**Design Capacity of Sewage Treatment Plant:**

Design Capacity with All Treatment Trains in Operation	Existing Works
Maximum Daily Flow	65 m <sup>3</sup> /d

## Influent

Receiving Location	Types
In Collection System	Sanitary Sewage
At Sewage Treatment Plant	None

## Proposed Works:

### Double Diamond Farms Wastewater Treatment Plant (WWTP)

#### Bunkhouse 1 Primary Treatment System

- two (2) existing 6,590 L capacity grease interceptors, collecting domestic sewage from the Bunkhouse 1 kitchens;
- one (1) existing 31,800 L capacity anaerobic digester, collecting domestic sewage from the Bunkhouse 1 washrooms and effluent from the two existing grease interceptors, and discharging via gravity to the pump tank described below;
- one (1) existing 9,100 L capacity pump tank, equipped with a high level visual/audible alarm system and alternating duplex submersible time-dosed effluent pumps each rated at 226 L/min at a 13.4 m total dynamic head (TDH), discharging to the existing biofilter described below;
- one (1) existing 24,100 L capacity precast concrete biofilter tank, equipped with two (2) wire mesh baskets filled with a total of 15 m<sup>3</sup> of Waterloo Biofilter media and alternating duplex submersible time-dosed effluent pumps each rated at 227 L/min at a 13.4 m TDH, discharging to the primary clarification / sludge storage tank at a maximum daily flow of 30,000 L/day (66 of cycles per day with 2 minutes of pump time per cycle);

#### Bunkhouse 2 Primary Treatment System

- one (1) 8,400 L capacity grease interceptor, collecting domestic sewage from the Bunkhouse 2 kitchens;
- two (2) 31,800 L capacity anaerobic digesters in series, equipped with an effluent filter (Polylock PL-525 or Equivalent Equipment) on the outlet of the final digester, collecting domestic sewage from the bunkhouse washrooms and effluent from the grease interceptor described above, discharging via gravity to the pump tank described below;
- one (1) 31,800 L capacity pump tank, equipped with a high level visual/audible alarm system and alternating duplex submersible time-dosed effluent pumps (Little Giant model WS50M-12 or Equivalent Equipment) each rated at 227 L/min at a 13.4 m TDH, discharging to the primary

clarification / sludge storage tank described below at a maximum daily flow of 30,000 L/day (66 of cycles per day with 2 minutes of pump time per cycle);

## Secondary Treatment System

- Biological Treatment
  - one (1) 50,000 L capacity anoxic primary clarification / sludge storage tank with InnerTube, collecting domestic sewage from the office/warehouse/greenhouse washrooms and effluent from the Primary Treatment Systems and the closed loop biofilter, discharging via gravity to the aeration tank described below;
  - one (1) 50,000 L capacity aeration tank, equipped with a fine bubble aeration system (four Vita-Aer V6 submersible micro-bubble aerators or Equivalent Equipment), discharging via gravity to the secondary clarifier described below;
  - four (4) air blowers rated at 245 m<sup>3</sup>/h;
- Secondary Sedimentation
  - one (1) 50,000 L capacity secondary clarifier, equipped with:
    - four (4) effluent filters (Polylock PL-525 or Equivalent Equipment) on the outlet, discharging via gravity to the balancing/pump tank described below;
    - one (1) return activated sludge pump (Little Giant model WS50M-12 or Equivalent Equipment) rated at 227 L/min at a 13.4 m TDH, discharging to the primary clarification / sludge storage tank described above;
- Biological Treatment
  - one (1) 65,000 L capacity balancing/pump tank, equipped with with a high level visual/audible alarm system and alternating duplex submersible time-dosed effluent pumps (Little Giant model WS100HM-12 or Equivalent Equipment) each rated at 302 L/min at a 18.9 m TDH, discharging to the biofilter tanks described below at a maximum daily flow of 65,000 L/day (108 of cycles per day with 2 minutes of pump time per cycle);
  - four (4) 45,000 L capacity precast concrete biofilter tanks, operating in parallel and inter-connected to each other, each equipped with spray units and three wire mesh baskets each filled with 9.5 m<sup>3</sup> of Waterloo Biofilter media for a total of 114 m<sup>3</sup> of media, discharging to the underdrain of the closed loop biofilter described below;
  - one (1) 50,000 L capacity closed loop biofilter tank equipped with:
    - spray units and three wire mesh baskets each filled with 10.5 m<sup>3</sup> of Waterloo Biofilter media

for a total of 31.5 m<sup>3</sup> of media;

- alternating duplex submersible demand-dosed effluent pumps (Little Giant model WS100HM-12 or Equivalent Equipment) each rated at 302 L/min at a 18.9 m TDH, discharging to the sand filters described below;
- one (1) submersible time-dosed effluent recirculation pump (Little Giant model WS50HM-12 or Equivalent Equipment) rated at 151 L/min at a 8.5 m TDH, discharging to the baskets within the closed loop biofilter at a maximum daily flow of 47,250 L/day; and
- one (1) submersible time-dosed effluent return pump (Little Giant model WS50M-12 or Equivalent Equipment) rated at 151 L/min at a 8.5 TDH, discharging to the primary clarification / sludge storage tank described above at a maximum daily flow of 65,000 L/day;

### **Post-Secondary Treatment System**

- Sand Filters
  - two (2) 0.36 m diameter x 1.65 m high NEXTSAND sand filter tanks (one standby), each with a surface area of 0.093 m<sup>2</sup>, each equipped with a 100 micron bag filter on the feed line, discharging treated effluent to the UV disinfection system below;
  - An automatic backwash system, discharging backwash effluent to the primary clarification / sludge storage tank described above;

### **Supplementary Treatment Systems**

- Phosphorus Removal, Alkalinity Addition and Bacteria Addition
  - four (4) chemical dosing systems, comprised with spill containment and four (4) metering pumps each rated for 0-0.6 L/min, with the provision for dosing alkalinity, phosphorus removal agents or bacteria to the primary clarification / sludge storage tank, the secondary clarifier, the balancing/pump tank and the closed loop biofilter;

### **Disinfection System**

- three (3) UV disinfection units (Hallet 30 1.5" or Equivalent Equipment) operating in parallel, discharging to the final pump tank described below;

### **Effluent Flow Measurement and Sampling Point**

- one (1) flow measurement device and one (1) automatic composite sampler, both located at the outlet of the UV disinfection;

## **Final Pump Tank**

- one (1) 65,000 L capacity final pump tank, equipped with with a high level visual/audible alarm system and alternating duplex submersible demand-dosed effluent pumps (Little Giant model WS50M-12 or Equivalent Equipment) each rated at 246 L/min at a 5.6 m TDH, discharging to the Final Effluent Disposal Facility described below;

## **Final Effluent Disposal Facility**

- one (1) 50 mm forcemain, discharging into a 150 mm gravity pipe with a minimum 0.5% slope, discharging into the West Branch of the Reid Drain;

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.

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

1. "Annual Average Daily Influent Flow" means the cumulative total sewage flow of Influent to the Sewage Treatment Plant during a calendar year divided by the number of days during which sewage was flowing to the Sewage Treatment Plant that year;
2. "Annual Maximum Daily Influent Flow" means the maximum Influent collected in a single day during a calendar year;
3. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
4. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;
5. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
6. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
7. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
8. "*E. coli* " refers to coliform bacteria that possess the enzyme beta-glucuronidase and are capable of cleaving a fluorogenic or chromogenic substrate with the corresponding release of a fluorogen or chromogen, that produces fluorescence under long wavelength (366 nm) UV light, or color development,

respectively. Enumeration methods include tube, membrane filter, or multi-well procedures. Depending on the method selected, incubation temperatures include  $35.5 + 0.5$  °C or  $44.5 + 0.2$  °C (to enumerate thermotolerant species). Depending on the procedure used, data are reported as either colony forming units (CFU) per 100 mL (for membrane filtration methods) or as most probable number (MPN) per 100 mL (for tube or multi-well methods);

9. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
10. "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;
11. "Final Effluent" means effluent that is discharged to the environment through the approved effluent disposal facilities, including all Bypasses, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point(s);
12. "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;
13. "Influent" means flows to the Sewage Treatment Plant from the collection system but excluding process return flows.
14. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the PEA;
15. "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;
16. "Monthly Average Effluent Concentration" is the mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month;
17. "Monthly Average Daily Effluent Flow" means the cumulative total Final Effluent discharged during a calendar month divided by the number of days during which Final Effluent was discharged that month;
18. "Monthly Geometric Mean Density" is the geometric mean of all Single Sample Results of *E.coli* measurement in the samples taken during a calendar month;
19. "Normal Operating Condition" means the condition when all unit process(es), excluding Preliminary Treatment System, in a treatment train is operating within its design capacity;
20. "Operating Authority" means the Owner, person or the entity that is authorized by the Owner for the management, operation, maintenance, or alteration of the Works in accordance with this Approval;
21. "Owner" means any person that is responsible for the establishment of the Works being approved by this Approval, and includes Owner's Legal Name and its successors and assigns;

22. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40;
23. "Peak Daily Flow Rate" (also referred to as maximum daily flow or maximum day flow) means the largest volume of flow to be received during a one-day period for which the sewage treatment process unit or equipment is designed to handle;
24. "PEA" means *Professional Engineers Act*, R.S.O. 1990, c. P.28;
25. "Preliminary Treatment System" means all facilities in the Sewage Treatment Plant associated with screening and grit removal;
26. "Procedure F-5-1" means the Ministry guidance document titled "Procedure F-5-1 - Determination of Treatment Requirements for Municipal and Private Sewage Treatment Works Discharging to Surface Waters " dated May 2, 2019;
27. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
28. "Sewage Treatment Plant" means all the facilities related to sewage treatment within the sewage treatment plant site excluding the Final Effluent disposal facilities;
29. "Single Sample Result" 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;
30. "Works" means the approved sewage works, and includes Proposed 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 terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.
3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

4. 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 AND OPERATING AUTHORITY**

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

## **3. CONSTRUCTION OF PROPOSED WORKS**

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(s).

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. 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.
4. The Owner shall ensure that the treatment technologies are installed in accordance with the manufacturer's installation manual.

#### **4. DESIGN OBJECTIVES**

1. The Owner shall design and undertake everything practicable to operate the Sewage Treatment Plant in accordance with the following objectives:
  - a. Final Effluent is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.
  - b. Annual Maximum Daily Influent Flow is within the Maximum Daily Flow of the Sewage Treatment Plant.

#### **5. COMPLIANCE LIMITS**

1. The Owner shall operate and maintain the Sewage Treatment Plant such that compliance limits for the Final Effluent parameters listed in the table(s) included in Schedule B are met.
2. The Owner shall operate and maintain the Sewage Treatment Plant such that the Final Effluent is disinfected continuously year-round.

#### **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 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:

- a. operating procedures for the Works under Normal Operating Conditions;
  - b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
  - c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;
  - d. procedures for the inspection and calibration of monitoring equipment;
  - e. 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;
  - f. 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;
  - g. procedures for receiving, responding and recording public complaints, including recording any followup actions taken.
3. The Owner shall maintain an up to date operations manual and make the manual readily accessible for reference at the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.
  4. The Owner shall maintain a logbook to record the results of all inspections, repair and maintenance undertaken, calibrations, monitoring and spill response or contingency measures undertaken and shall make the logbook available for inspection by Ministry staff. The logbook shall include the following:
    - a. the name of the operator making the entry; and
    - b. the date and results of each inspection, repair, maintenance, calibration, monitoring, spill response and contingency measure.
  5. The Owner shall, upon completion of construction, prepare and make available for inspection by Ministry staff, a maintenance agreement with the manufacturer for the treatment process/technology. The maintenance agreement must be retained at the site and kept current for the operational life of the Works.
  6. 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. The Owner shall ensure that the collected excess sludge from the Works is hauled off-site and disposed

of at an approved facility using the services of a licensed hauler.

## **7. 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 C and record all results, as follows:
  - a. 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.
  - b. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.b.
  - c. definitions for frequency:
    - i. Weekly means once every week;
    - ii. Monthly means once every month;
  - d. a schedule of the day of the week/month for the scheduled sampling shall be created. The sampling schedule shall be revised and updated every year through rotation of the day of the week/month for the scheduled sampling program, except when the actual scheduled monitoring frequency is three (3) or more times per week.
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:
  - a. the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended;
  - b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
  - c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
  - d. for any parameters not mentioned in the documents referenced in Paragraphs 3.a, 3.b and 3.c, the written approval of the District Manager shall be obtained prior to sampling.
3. The Owner shall monitor and record the flow rate and daily quantity using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:

- a. Final Effluent discharged from the Sewage Treatment Plant by continuous flow measuring devices;
4. 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.

## **8. REPORTING**

1. The Owner shall report to the District Manager orally as soon as possible any non-compliance with the compliance limits, and in writing within seven (7) days of non-compliance.
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.
4. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager within 90 days following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:
  - a. a summary and interpretation of all Influent monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;
  - b. a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, and comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;
  - c. a summary of any deviation from the monitoring schedule and reasons for the current reporting year and a schedule for the next reporting year;
  - d. a summary of all operating issues encountered and corrective actions taken;
  - e. a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;
  - f. a summary of any effluent quality assurance or control measures undertaken;
  - g. a summary of the calibration and maintenance carried out on all Influent and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
  - h. a tabulation of the volume of sludge generated, an outline of anticipated volumes to be generated in

the next reporting period and a summary of the locations to where the sludge was disposed;

- i. a summary of any complaints received and any steps taken to address the complaints;
- j. a summary of situations outside Normal Operating Conditions and spills within the meaning of Part X of EPA and abnormal discharge events;
- k. any changes or updates to the schedule for the completion of construction and commissioning operation of major process(es) / equipment groups in the Proposed Works;
- l. any other information the District Manager requires from time to time.

*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 and Operating Authority is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Authority 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 construction of Proposed Works is included to ensure that the Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction to ensure the ongoing protection of the environment, and that prior to the commencement of construction of the portion of the Works that are approved in principle only, the Director will have the opportunity to review detailed design drawings, specifications and an engineer's report containing detailed design calculations for that portion of the Works, to determine capability to comply with the Ministry's requirements stipulated in the terms and conditions of the Approval, and also ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
4. Condition 4 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.
5. Condition 5 regarding compliance limits is imposed to ensure that the Final Effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements.
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 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 and compliance limits.
8. Condition 8 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.

## **Schedule A**

1. Environmental Compliance Approval Application for a Municipal and Private Sewage Works submitted and signed by Craig Klingbyle, Double Diamond Farms, dated October 21, 2020 and received on November 27, 2020, and all supporting documentation and information.
2. Set of three (3) drawings dated November 4, 2020 and prepared by K. Smart Associates Limited.
3. Design Brief, dated November 4, 2020, including calculations and engineering drawings, prepared by K. Smart Associates Limited.

## Schedule B

### Final Effluent Compliance Limits

#### Concentration Limits

Final Effluent Parameter	Averaging Calculator	Limit (maximum unless otherwise indicated)
CBOD5	Monthly Average Effluent Concentration	10.0 mg/L (May 1 - Oct 31) 15.0 mg/L (Nov 1 - Apr 30)
Total Suspended Solids	Monthly Average Effluent Concentration	10.0 mg/L (May 1 - Oct 31) 15.0 mg/L (Nov 1 - Apr 30)
Total Phosphorus	Monthly Average Effluent Concentration	0.3 mg/L
Total Ammonia Nitrogen	Monthly Average Effluent Concentration	**2.0 mg/L (May 1 - Oct 31) 3.0 mg/L (Nov 1 - Apr 30)
<i>E. coli</i>	Monthly Geometric Mean Density	*100 CFU/100 mL
pH	Single Sample Result	between 6.0 - 9.5 inclusive

\*If the MPN method is utilized for *E. coli* analysis the limit shall be 100 MPN/100 mL.

\*\*During the commissioning stage, six (6) months from the date of start-up, an interim compliance limit applies for Total Ammonia Nitrogen as: 4.0 mg/l during Summer (May 1 to October 31) and 6.0 mg/L during Winter (November 1 to April 30).



## Schedule C

### Monitoring Program

Influent - Influent sampling point

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

**Final Effluent - Final Effluent sampling point**

<b>Parameters</b>	<b>Sample Type</b>	<b>Minimum Frequency</b>
CBOD5	24 hour composite	Weekly
Total Suspended Solids	24 hour composite	Weekly
Total Phosphorus	24 hour composite	Weekly
Total Ammonia Nitrogen	24 hour composite	Weekly
Total Kjeldahl Nitrogen	24 hour composite	Weekly
Nitrate as Nitrogen	24 hour composite	Weekly
Nitrite as Nitrogen	24 hour composite	Weekly
<i>E. coli</i>	Grab	Weekly
pH*	Grab/Probe/Analyzer	Weekly
Temperature*	Grab/Probe/Analyzer	Weekly
Un-ionized Ammonia**	As Calculated	Weekly

\*pH and temperature of the Final Effluent shall be determined in the field at the time of sampling for Total Ammonia Nitrogen.

\*\*The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended.

**Sludge – sludge storage tank**

<b>Parameters</b>	<b>Sample Type</b>	<b>Minimum Frequency</b>
Total Solids	Grab	Annually
Total Phosphorus	Grab	Annually
Total Ammonia Nitrogen	Grab	Annually
Nitrate as Nitrogen	Grab	Annually
Metal Scan - Arsenic - Cadmium - Cobalt - Chromium - Copper - Lead - Mercury - Molybdenum - Nickel - Potassium - Selenium - Zinc	Grab	Annually

*In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. 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.

*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 Minister of the Environment,  
Conservation and Parks  
777 Bay Street, 5th Floor  
Toronto, Ontario  
M7A 2J3

AND

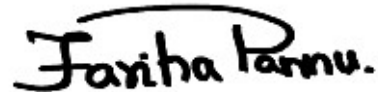
The Director appointed for the purposes of  
Part II.1 of the Environmental Protection Act  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* 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)**

*This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.*

*The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.*

DATED AT TORONTO this 30th day of April, 2021



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Fariha Pannu, P.Eng.

Director

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

NZ/

c: Area Manager, MECP Windsor

c: District Manager, MECP Sarnia

Sandra Swanton, K. Smart Associates Limited