

## AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 8839-DKEGP9  
Issue Date: August 20, 2025

Under Sun Acres Inc.  
620 Mersea Road 10  
Leamington, Ontario  
N0P 2J0

Site Location: 620 Mersea Road 10  
Municipality of Leamington  
County of Essex, Ontario

*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, modification, usage and operation of the Works, for the treatment of **sanitary** sewage from existing Phases 1 and 2 and new Phase 3 bunkhouses, and washroom facilities serving greenhouse, warehouse and office buildings located at the above Site Location, and disposal of Final Effluent to a municipal drain - West Branch of Reid Drain, consisting of the following:

### Service Area of the Works

- existing Phases 1 and 2, and new Phase 3 greenhouse and bunkhouse development for accommodating a total of 140 persons residing on-site, up to 50 employees (residing off-site) at greenhouse and warehouse facilities, as well as 8 loading docks

### Maximum Daily Flow of the Works

	Upon Completion of Construction of all Works
<b>Maximum Daily Flow</b>	40,000 litre per day (0.46 litres per second)
<b>Balanced Average Daily Flow</b>	32,000 litre per day (0.37 litres per second)

### Phase 1 Pre-treatment Unit

- one (1) grease interceptor, having a working capacity of 6,590 litres, receiving sewage from kitchen and discharging into septic tank No.1;
- one (1) two-compartment septic tank No.1, having a working capacity of 29,500 litres, receiving sewage from the above grease interceptor and building sewers, equipped with an effluent filter, discharging into

pump tank No.1;

- one (1) 9,100 litre pump tank No.1, equipped with duplex effluent pumps each rated at 226 litre per minutes with a Total Dynamic Head (TDH) of 13.4 metres, discharging to a Biofilter treatment unit;
- one (1) Biofilter treatment unit consisting of one (1) 20,400 litre precast concrete tank equipped with Waterloo Biofilter mesh baskets filled with 14.0 cubic metres of filter media, discharging effluent into an equalization tank/pump station EQ/PS1;

### **Phase 2 Pre-treatment Unit**

- one (1) grease interceptor (OG1), having a total working capacity of 6,590 litres, receiving sewage from Phase 2 Bunkhouse kitchen and discharging into the equalization tank/pump station EQ/PS1.

### **Phased 3 Pre-treatment and Pump Station**

- one (1) grease interceptor (OG2), having a total working capacity of 17,700 litres, receiving kitchen waste only from new Phase 3 worker's quarters (bunkhouse) and discharging into grinder pump station (PS2);
- one (1) 11,365 litre grinder pump station (PS2), receiving the effluent from the above OG2 and other sanitary sewage from the new Phase 3 bunkhouse and greenhouse, equipped with duplex grinder pumps, with provision of an influent flow meter within a dry metre chamber, discharging via forcemain to the existing equalization tank/pump station EQ/PS1;

### **Flow Equalization Tank/Pump Station (EQ/PS1)**

- one (1) flow equalization tank/pump station EQ/PS1, accepting the effluent from the Phase 1 Biofilter treatment unit, flows from sanitary sewer and the grease interceptor from Phase 2 bunkhouse and the effluent from the Phase 3 grinder pump station, having a volume capacity of 33,500 litres, equipped with two pumps each having a rated capacity of 1.6 litres per second, discharging via a 50 millimetre diameter forcemain into sludge storage/primary clarification tanks;

### **Sludge Storage/Primary Clarification Tanks**

- one (1) sludge storage/primary clarification tanks comprised of a new 50,000 litre sludge storage tank (SS1) and an existing 50,000 litre primary sludge storage/primary clarification tank (SS2/PC), operating in series, having a total effective volume capacity of 100,000 litres, accepting waste activated sludge from downstream Moving Bed Biofilter Reactor (MBBR) treatment unit, as well as the effluent of the flow equalization tank/pump station EQ/PS1, functioning as sludge storage tank with sludge discharged periodically using vacuum truck, as well as primary clarifier discharging effluent into MBBR treatment unit;

### **Chemical Dosing**

- one (1) alkalinity addition system for alkalinity supplement, as required, through manual or automated addition of an alkali (soda ash or alternate) into the sludge storage/clarification tanks or the MBBR influent location;
- one (1) chemical dosing system, injecting coagulant (alum, Clariphos, or alternate) into the sludge storage/clarification tanks;
- provision of a secondary point of chemical addition (precipitant or precipitant-flocculant) into the MBBR effluent for the precipitation of soluble phosphorus, solids agglomeration and settling in the final clarifier;

### **Moving Bed Biofilter Reactor (MBBR) Treatment Unit**

- expansion of existing two-stage MBBR treatment unit to 3-stages, having a total volume capacities of 28,200 litres (9,600 litres for MBBR #1, 9,400 litres for MBBR #2, and 9,200 litres for MBBR #3), containing a combined volume of 12 cubic metres of engineered plastic carrier media that provides a total of 6,000 square metres of media surface area, equipped with fine bubble diffuser aeration systems, air blowers, and effluent recirculation pump in the MBBR #3 for flow re-circulating up to 200% projected average daily flow to the sludge storage/primary clarification tanks, discharging treated effluent into a final clarifier;

### **Final Clarifier**

- one (1) expanded final clarifier, having a total surface area of 7.37 square metres with hopper bottom and overall dimensions of 3.15 metres by 2.34 metres by 2.4 metres (H), equipped with air lift sludge return system and surface skimmer pump, discharging sludge into sludge storage tank SS1, and discharging effluent into new filter feed well;
- one (1) 9,100 litre new filter feed well (PS3), equipped with duplex effluent pumps, discharging into bag filters;

### **Filters**

- two (2) bag filters, operating in series, having a rated hydraulically capacity of 6.9 litres per second, discharging into a sand filter;
- one (1) sand filter with a rated hydraulically capacity of 1.0 litres per second, comprising a 350 millimetre diameter by 165 millimetre high tank equipped with NextSand filtration media, discharging backwash water to the sludge storage tank SS1, and discharging filtered effluent into an ultraviolet (UV) disinfection system;

### **UV Disinfection**

- two (2) Viqua PRO30 (or approved equal) UV disinfection units capable of operating in series or

parallel, each rated for 113 litres per minute (30 usgpm) and equipped with visual lamp life indicator;

### **Final Effluent Discharge**

- one (1) Final Effluent flow meter installed on the filter feed discharge piping;
- 150 mm gravity effluent pipe discharging Final effluent from UV disinfection units into the West Branch of Reid Drain, which is an intermittent flow watercourse and tributary to the Silver Creek Drain and Ruscom River; and

### **Miscellaneous**

- all other mechanical system, electrical system, instrumentation and control 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. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
2. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;
3. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
4. "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;
5. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located, Sarnia/Windsor District Office in this Approval;
6. "*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);

7. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c. E.19;
8. "Final Effluent" means effluent that is discharged to the environment through the approved effluent disposal facilities, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point(s);
9. "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;
10. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28, as amended;
11. "Maximum Daily Flow" (also referred to as Peak Daily Flow Rate 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;
12. "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;
13. "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;
14. "Monthly Geometric Mean Density" is the mean of all Single Sample Results of *E.coli* measurement in the samples taken during a calendar month, calculated and reported as per the methodology specified in **Schedule D**;
15. "Normal Operating Condition" means the condition when all unit process(es) in a treatment train is operating within its design capacity;
16. "Operating Agency" means the Owner, or the person or entity that is authorized by the Owner for the management, operation, maintenance, or alteration of the Works in accordance with this Approval;
17. "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 assignees;
18. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40;
19. "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;

20. "Works" means the approved sewage 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.

### **2. CHANGE OF OWNER AND OPERATING AGENCY**

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 shall be included in the notification;
  - d. change of name of the corporation and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, c. C.39 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 the Operating Agency;
  - b. change of the Operating Agency, including address of the new Operating Agency.
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 number of this Approval.

### 3. CONSTRUCTION OF PROPOSED WORKS

1. 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 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 the proposed expansion and modification of the Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the 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. DESIGN OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Works 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 surface receiving waters.
  - b. The total Maximum Daily Flow is within the design capacity of the Works - 40,000 litre per day.

### 5. COMPLIANCE LIMITS

1. The Owner shall operate and maintain the Works such that compliance limits for the Final Effluent listed in the table included in **Schedule B** are met. In addition to the effluent concentration limit, the Owner shall design, construct, operate and maintain the Works such that the annual loading of total phosphorus in the effluent discharged to the West Branch of Reid Drain that eventually drains to the Silver Creek Drain is maintained at **2.7375 kilograms per year**.
2. The Owner shall operate and maintain the Works such that the Final Effluent is disinfected continuously year-round, or during operation for seasonal operation.

3. The Owner shall cease discharge of any non-compliant effluent to the West Branch of Reid Drain from the Works within 24 hours under the following conditions, until the treatment system returns to compliance.
  - a. Upon request by the District Manager.
  - b. Should the concentration of Total Ammonia Nitrogen (TAN) in the Final Effluent exceed 4.0 milligrams per litre during the summer (May 01 to October 31) or 6.0 milligrams per litre during the winter (November 01 to April 30) during the operational life of the Sewage Treatment Plant, including start-up and commissioning, the Owner shall notify the District Manager pursuant to subsection 2 of Condition 8 (regarding reporting) and stop discharging to the receiver within twenty-four (24) hours.
4. Under the cease-discharging conditions pursuant to above subsections 3.a. or 3.b., the Owner shall implement the contingency measures pursuant to subsection 2.f. of Condition 6 (regarding operation and maintenance), and ensure the non-compliant effluent be either recirculated through the treatment system for re-treatment for compliance, or be hauled off-site to an approved waste disposal site by a registered waste hauler.
5. Upon the Works returning to compliance, the Owner shall ensure the District Manager be notified prior to discharge resumption.

## **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 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 Spills Action Centre (SAC) and District Manager;
  - g. procedures for receiving, responding and recording public complaints, including recording any follow-up 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 ensure that the Operating Authority possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.
  - 5. The Owner shall ensure the oil and grease interceptors be cleaned out at least once per year, or more frequently as determined by the Operating Authority, for removal of fats, oil and grease from the kitchen wastewater prior to discharging the sewage to the flow equalization tanks or septic tanks.
  - 6. The Owner shall have a valid written agreement with a hauler who is in possession of a Waste Management Systems Approval, for the treatment and disposal of the sludge generated from the Works, at all times during operation of the Works.
  - 7. The Owner shall ensure that the septic tank is pumped out every 3-5 years or when the tank is 1/3 full of solids and the effluent filter is cleaned out at minimum once a year (or more often if required).
  - 8. 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.

## **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
    - iii. Annually means once every year
  - 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.
  - e. The measurement frequencies specified in **Schedule C** in respect to any parameter may, after **two (2) years** of monitoring in accordance with this Condition, be modified by the Director in writing.
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 Final Effluent discharged from the Works 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 effluent compliance limits, and in writing within seven (7) days of non-compliance.
2. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, 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 a schedule of implementation.
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 in an electronic format by **June 30** of the calendar year 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 a comparison to compliance limits in this Approval, including an overview of the success and adequacy of the Works;
  - c. a summary of all operating issues encountered and corrective actions taken;
  - d. 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;
  - e. a summary of any effluent quality assurance or control measures undertaken;
  - f. 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;
  - g. a description of efforts made and results achieved in meeting the design objectives outlined in Condition 4;
  - 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 all other 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 Works; and
- l. any other information the District Manager requires from time to time.

## **Schedule A**

1. Application for Environmental Compliance Approval dated November 26, 2024 and received on November 27, 2024, and submitted by Chris Del Greco, President of Under Sun Acres Inc., for the expansion and modifications of sanitary sewage treatment Works to accommodate additional Phase 3 greenhouse and bunkhouse development, including design brief, engineering drawings and specifications.

## Schedule B

### Final Effluent Compliance Limits

Effluent Parameter	Monthly Average Effluent Concentration* <sup>1</sup> Limits (maximum unless otherwise indicated)	
	Summer (May 01 to October 31)	Winter (November 01 to April 30)
<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
CBOD5	10.0 mg/L* <sup>2</sup>	15.0 mg/L
Total Suspended Solids (TSS)	10.0 mg/L	15.0 mg/L
Total Ammonia Nitrogen (TAN)* <sup>3</sup>	2.0 mg/L	3.0 mg/L
Total Phosphorus (TP)	0.3 mg/L (Loading Limit: 2.7375 kilograms per year)	
<i>E. coli.</i>	100 CFU/100 millilitres* <sup>4</sup>	

**Note\*<sup>1</sup>:** The limit of *E.coli.* is for monthly Geometric Mean Density.

**Note\*<sup>2</sup>:** mg/L means milligrams per litre.

**Note\*<sup>3</sup>:** During commissioning stage, **six (6) months** after the date of start-up, an interim compliance limit applies for the Total Ammonia Nitrogen (TAN) as: 4.0 mg/L during Summer (May 01 to October 31), or 6.0 mg/L during Winter (November 01 to April 30).

**Note\*<sup>4</sup>:** If the MPN method is utilized for *E. coli* analysis, the limit shall be 100 MPN/100 millilitres.

## Schedule C - Monitoring Program

**Table C-1 Influent Monitoring**

<b>Sample locations</b>	one (1) sampling point at the flow equalization tank EQ/PS1
<b>Frequency</b>	Monthly
<b>Sample Type</b>	Grab
<b>Parameters</b>	BOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Total Kjeldahl Nitrogen, pH

**Table C-2 Final Effluent Monitoring**

<b>Sample location</b>	Final Effluent from the UV disinfection unit, prior to discharging into the Reid Drain - West Branch.
<b>Frequency</b>	Weekly
<b>Sample Type</b>	Minimum 8-hour Composite (except <i>E.Coli.</i> , pH, and Temperature)
<b>Parameters</b>	CBOD5, Total Suspended Solids, Total Ammonia Nitrogen, Total Phosphorus, <i>E. coli.</i> (grab), pH*(grab/probe/analyzer), and Temperature*(grab/probe/analyzer)

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

**Table C-3 Sludge/Biosolids Sampling**

Sampling location: Sludge Storage Tank and Septic/Sludge Tank, as one combined sample

Parameters	Sample Type	Minimum Frequency
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



## Schedule D

### Methodology for Calculating and Reporting Monthly Geometric Mean Density

Geometric mean is defined as the  $n^{\text{th}}$  root of the product of  $n$  numbers. In the context of calculating Monthly Geometric Mean Density for *E. coli*, the following formula shall be used:

$$\sqrt[n]{x_1 x_2 x_3 \cdots x_n}$$

in which,

" $n$ " is the number of samples collected during the calendar month; and

" $x$ " is the value of each Single Sample Result.

For example, four weekly grab samples were collected and tested for *E. coli* during the calendar month. The *E. coli* densities in the Final Effluent were found below:

Sample Number	<i>E. coli</i> Densities* (CFU/100 mL)
1	10
2	100
3	300
4	50

The Geometric Mean Density for these data:

$$\sqrt[4]{10 \times 100 \times 300 \times 50} = 62$$

\*If a particular result is zero (0), then a value of one (1) will be substituted into the calculation of the Monthly Geometric Mean Density. If the MPN method is utilized for *E. coli* analysis, values in the table shall be MPN/100 mL.

*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 Agency is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Agency 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.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 8046-BRPJE9 issued on August 12, 2020.**

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land 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 ("the Notice") 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:

Registrar\*  
Ontario Land Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5  
OLT.Registrar@ontario.ca

and

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

and

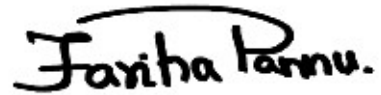
The Director appointed for the purposes of  
Part II.1 of the *Environmental Protection Act*  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or [www.olt.gov.on.ca](http://www.olt.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 20th day of August, 2025



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Fariha Pannu, P.Eng.

Director

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

NH/

c: Area Manager, MECP Windsor Area Office

c: District Manager, MECP Sarnia District Office

Richard Pellerin, P.Eng., Sco-Terra Consulting Group Limited