

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 5898-CXRR22  
Issue Date: January 22, 2024

Greenhill Produce (Thamesville) Ltd.  
11729 River Line  
Chatham-Kent, Ontario  
N0P 2K0

Site Location: 23308 Kent Bridge Road,  
23250 Kent Bridge Road,  
23282 Kent Bridge Road, and  
Municipality of Chatham-Kent, 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:*

existing and proposed sewage Works for the treatment and subsurface disposal of sanitary sewage from the bunkhouse and greenhouse development, as well as for the collection, detention and disposal of stormwater runoff from the above Site Location, consisting of the following:

**SEWAGE TREATMENT AND SUBSURFACE DISPOSAL SYSTEMS**

the expansion, usage and operation of sanitary Sewage Treatment and Subsurface Disposal Systems, consisting of the following:

**Service Area**

**Sewage Treatment and Subsurface Disposal System No. 3 (23308 Kent Bridge Road)**

- servicing bunkhouses for accommodating workers residing on-site, and washroom facilities serving greenhouse/warehouse, with a design Maximum Daily Flow of 35,000 litres per day (L/day)

**Sewage Treatment and Subsurface Disposal System No. 1 (23250 and 23282 Kent Bridge Road)**

- servicing bunkhouses for accommodating workers residing on-site, and washroom facilities serving greenhouse/warehouse, with a design Maximum Daily Flow of 35,000 L/day

**Sewage Treatment and Subsurface Disposal System No. 2 (23308 Kent Bridge Road)**

- servicing bunkhouses for accommodating workers residing on-site, and washroom facilities

serving greenhouse/warehouse, with a design Maximum Daily Flow of 35,000 L/day

**Design Capacity of the Sanitary Sewage Treatment and Subsurface Disposal Systems**

	Prior to Completion of Construction of All Proposed Works	Upon Completion of Construction of All Proposed Works
<b>Maximum Daily Flow</b>	70,000 L/day	105,000 L/day

**PROPOSED WORKS**

New Sewage Treatment and Subsurface Disposal System No.3 located at 23308 Kent Bridge Road, serving a new bunkhouses #10, #11 and future bunkhouses and greenhouse development, having a design Maximum Daily Flow of 35,000 L/day, consisting of the following:

- one (1) 6,000 L grease interceptor, Grease Interceptor #1, receiving kitchen wastewater from the proposed bunkhouses, discharging by gravity to a septic/sludge tank;
- two (2) 13,600 L septic/sludge tanks connected in series, identified as Anaerobic Digesters #1 and #2, receiving raw sewage from the bunkhouses and effluent from the Grease Interceptor #1, each equipped with effluent filter with Anaerobic Digester #2 equipped with EC-P unit directing effluent by gravity to a 9,100 L pump tank;
- one 9,100 L pump tank, Pump Tank #1, receiving septic effluent from the Anaerobic Digester #2, equipped with Biofilter basket with 3.0 cubic metre (m<sup>3</sup>) Biofilter media and duplex effluent pumps rated at 151 L/minute at a Total Dynamic Head (TDH) of 8.5 metres (m), discharging to Anaerobic Digester #3;
- two 22,700 L septic/sludge tanks, identified as Anaerobic Digesters #3 and #4, installed in series and each with an effluent filter on the outlet, receiving effluent from Pump Tank #1 and discharging by gravity to the Biofilter Dosing Tank;
- one 27,500 L Biofilter Dosing Tank receiving effluent from Anaerobic Digester #4, and equipped with a Biofilter Basket with 10.3 m<sup>3</sup> of Biofilter media, and equipped with duplex effluent pumps rated at 151 L/minute at a TDH of 8.5 m, discharging into a Waterloo Biofilter Treatment System;
- two 50,000 L Biofilter treatment tanks, Biofilter Tank #2 and #3, each comprising of spray units and three mesh baskets each filled with 9.1 m<sup>3</sup> Biofilter media, with the tanks hydraulically connected by under drains, with three baskets in Biofilter Tank #3 and three baskets in Biofilter Tank #2 receiving effluent from the Biofilter Dosing Tank, connected with under drains to Biofilter Tank #1
- one 50,000 L Biofilter Tank #1 with three mesh baskets filled with Biofilter media, with one basket dosed from the Biofilter Dosing Tank, and Two baskets dosed from the Biofilter Tank #1, is equipped with duplex effluent pumps rated at 267 L/minute at a TDH of 12 m to discharge a portion of treated effluent to subsurface disposal bed, simplex effluent pump rated at 151 litres per minute at a TDH of 8.5

m to recirculate a portion of treated effluent to the two Closed Loop Biofilter Baskets located in the tank, and a simplex effluent pump rated at 151 L/minute at a TDH of 8.5 m to recirculate a portion of treated effluent to the inlet of Anaerobic Digester #3;

- one (1) Shallow Buried Trenches Subsurface Disposal Bed having an area of 200 square metres and consisting of leaching chambers (Infiltrator Quick 4 Equalizer 24LP) with a total length of 736 m, arranged in four (4) cells, each cell has eight (8) runs of 23 m long leaching chambers spaced at a minimum centre-line distance of 3.0 metres, each run of infiltration chamber installed at a maximum bottom depth of 500 millimetres (mm) and each equipped with a 32 mm diameter pressurized perforated pipe, installed in sand backfill with a percolation time of less than 20 minutes per centimetre;

#### Systems to serve Future Bunkhouse

- one (1) 6,000 L grease interceptor receiving kitchen wastewater from each pair of future 24-person bunkhouses, discharging by gravity to a septic tank;
- two (2) 12,000 L septic/sludge tanks connected in series receiving effluent from grease interceptor, and wastewater from each pair of future 24-person bunkhouses, each equipped with effluent filter and second tank in series equipped with EC-P unit, directing effluent by gravity to a 9,100 L pump tank;
- one (1) 9,100 L pump tank receiving effluent from septic/sludge tanks, equipped with Biofilter basket with 3.0 cubic metre Biofilter media and duplex effluent pumps rated at 151 L/min at a TDH of 8.5 m, discharging to Anaerobic Digester #3; and

#### Miscellaneous

- including control building, chemical dosing for phosphorus removal, and other mechanical system, electrical system, instrumentation and control system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the Proposed Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only.

### **EXISTING WORKS**

#### **Sewage Treatment and Subsurface Disposal System No.1**

Existing Sewage Treatment and Subsurface Disposal System No.1, located at 23250 and 23282 Kent Bridge Road, having a design Maximum Daily Flow of 35,000 L/day, consisting of the following:

#### **Sewage Treatment System (located at 23282 Kent Bridge Road)**

- three (3) existing 12,000 L septic tanks, each receiving domestic sewage from a 24 person bunkhouse each flowing by gravity to an existing 1,800 litre pump tank equipped with duplex effluent pumps;
- two (2) existing 3,600 L septic tanks, each receiving domestic sewage Phase 3 greenhouse/warehouse

washrooms facilities;

- two (2) existing 4,500 L septic tanks, each receiving domestic sewage Phase 2/3 office washrooms facilities and Phase 4 greenhouse;
- one (1) existing 6,800 L septic tanks, receiving domestic sewage for Phase 4 office and greenhouse;
- pumps in existing septic tanks and pump tanks to be replaced with duplex effluent pumps
- three (3) 4050 litre grease interceptors to receiving effluent from existing bunkhouse kitchen sink
- one (1) 4050 litre grease interceptor and one(1) 12,000 L septic tank receiving effluent from an existing bunkhouse located at 23250 Kent Bridge, equipped with two effluent pumps in the pump vault of the septic tank discharging via 50 mm forcemain to inlet of Septic # 1
- two (2) 18,200 L septic tanks #1 and #2, connected in series, receiving septic effluent from four existing septic tanks, with septic tank #2 equipped with effluent filters, directing effluent by gravity to a 31,800 L dosing tank, with access riser and lockable hatch
- one (1) 31,800 L Biofilter Dosing tank receiving effluent from the 18,200 L septic tanks, equipped with two pumps rated at 222 L/min at 12.0 TDH, discharging into three Biofilter treatment units
- three (3) 31,800 L Biofilter treatment units, operating in parallel, filled with Biofilter media, equipped with a total of 60 m<sup>3</sup> of Biofilter media, interconnected by underdrains, discharging by gravity to Biofilter Tank #3 which is equipped with two effluent pumps rated at 222 L/min at 12.0 m TDH discharging a portion of treated effluent through forcemain and into disposal bed, and one effluent pump rated at 151 L/min at 8.8 m TDH recirculating a portion of treated effluent back to the inlet of septic tank #2.
- one (1) flow meter located in underground chamber metering flow from Biofilter Tank # 3

#### **Shallow Buried Trenches Subsurface Disposal Bed (located at 23250 Kent Bridge Road)**

- one (1) Shallow Buried Trenches Subsurface Disposal Bed located east side of the greenhouse at 23250 Kent Bridge, receiving effluent through a 50 mm forcemain from Biofilter #3 and having a contact area of 12 m by 125 m for a total area of 1,500 m<sup>2</sup>, arranged into four zones of 4 runs, each 30 m long, spaced 3 metres centre on centre, with trenches containing 32 mm diameter piping installed inside Infiltrator Systems Quick 4 Equalizer 24LP Chambers, with an automatic distribution valve to dose each zone evenly, install on a level sub-grade and backfilled with sand having a percolation time of T <20 min/cm.

#### **Sanitary Sewage Treatment and Subsurface Disposal System No.2**

Existing Sewage Treatment and Subsurface Disposal System No.2 serving bunkhouses and washrooms within the greenhouse/warehouse/offices associated with the greenhouse operation located at 23308 Kent Bridge Road,

having a design Maximum Daily Flow of 35,000 L/day, consisting of the following:

Stage 1 - Sewage Treatment (17,000 L/day)

- two (2) 6,800 L septic tanks #1 and # 2, operating in parallel each receiving wastewater from washrooms located in the greenhouses and warehouse, each equipped tank with an effluent filter, both discharging by gravity to a pump tank;
- two (2) 3,600 L pump tanks, Pump Tanks #1 and # 2, each receiving effluent from a 6,800 L septic tank, each equipped with duplex effluent pump rated at 151 l/min at a TDH of 8.5 m, discharging to 18,200 L septic tank #5;
- one (1) 6,590 L grease interceptor, grease interceptor #1, receiving kitchen wastewater from the proposed Phase 1 bunkhouses, discharging by gravity to the septic tank #3;
- two (2) 13,600 L septic tanks connected in series, Septic Tanks #3 and # 4 receiving raw sewage from the proposed Phase 1 bunkhouses and effluent from the proposed grease interceptor # 1 with the second septic tank equipped with an effluent filter, directing effluent by gravity to a 9,100 L pump tank #3;
- one (1) 9,100 L pump tank, Pump Tank #3 receiving septic tank effluent from Septic Tank #4, equipped with duplex effluent pump rated at 151 l/min with a TDH of 8.5 m discharging to the Septic Tank #5;
- two(2) 18,200 L septic tanks, Septic Tanks #5 and #6 operating in series, receiving effluent from Pump Tank#1, #2 and #3 with an effluent filter on the outlet of the septic tank #6, discharging by gravity to the biofilter dosing tank
- one (1) 40,000 L dosing tank receiving effluent from Septic Tank #6, equipped with duplex effluent pumps rated at 222 L/min at a TDH of 12.0 m, discharging into a Waterloo Biofilter treatment tank
- two Biofilter treatment tanks, Biofilter Tank # 1 and #2, each equipped with three wire baskets filled with 9.1 cubic metres of Biofilter media with the tanks hydraulically connected by under drains, with five baskets to be dosed from Biofilter Filter Dosing tank resulting in a peak loading rate of  $385 \text{ L/m}^3$  /day, the sixth basket in Biofilter Tank # 1 to be dosed Biofilter Dosing Tank will be dosed as a closed loop by a simplex effluent pump located in the Biofilter Tank #1
- Biofilter Tank #1 is equipped with duplex effluent pumps rated at 222 l/min at 12 m TDH, discharging a portion of treated effluent to disposal, simplex effluent pump rated at 151 l/min at a TDH of 8.5 m used to dose a portion of treated effluent to the closed loop biofilter basket and a simplex effluent pump rated at 151 l/min at a TDH of 8.5 m to recirculate a portion of treated effluent to the inlet of Septic Tank #5
- chemical storage and dosing equipment housed within a control building capable of dosing chemical to achieve phosphorus removal feeding Septic Tanks #4, #5 and the Waterloo Biofilter Tank

Stage 2 - Sewage Treatment (increasing treatment capacity up to 35,000 L/day)

- one (1) 6,590 L grease interceptor, grease # 2 receiving kitchen wastewater from the bunkhouses, discharging by gravity to the proposed septic tank #3
- two (2) 13,600 L septic tanks connected in series, septic tank #7 and #8 receiving raw sewage from the proposed Phase 2 bunkhouses and effluent from the proposed grease interceptor #2, with the second septic tank equipped with effluent filter, directing effluent by gravity to a 9,100 L pump tank #4
- one (1) 9,100 L pump tank, pump tank #4, receiving septic effluent from Septic Tank #8, equipped with duplex effluent pumps rated at 151 L/min @ 8.5 m TDH, discharging to Septic Tank #5
- one (1) 40,000 L Biofilter treatment tank, Biofilter Tank #3, comprising of spray units and three wire mesh baskets filled with contain 9.1 m<sup>3</sup> of media, seven of baskets to dosed from Biofilter dosing tank resulting in a peak loading rate of 549 L/m<sup>3</sup>/day, two of the baskets in Biofilter Tank #1 will be dosed as a closed loop biofilter by a simplex effluent pump located in Biofilter Tank #1

#### Shallow Buried Trenches Subsurface Disposal Bed

- one (1) chamber (equipped with a flow meter) on the forcemain to the disposal bed;
- one (1) Shallow Buried Trenches Subsurface Disposal Bed divided into four (4) cells, each cell with six (6) runs of 30 m long trenches and spaced 3 m centre to centre, with a total length of 720 metres, each trench consisting of infiltrator quick 4 equalizer 24 LP chambers having 32 mm PVC distribution pipe, 3 mm holes at 1000 mm o/c;

including all other monitoring and control, electrical equipment instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned existing sanitary sewage treatment and subsurface disposal systems.

### **STORMWATER MANAGEMENT SYSTEMS**

stormwater management systems to serve the Phase 1 and 2 expansion of Greenhill Produce greenhouse for collection, transmission, treatment and disposal of stormwater runoff from a total catchment area of 31.5 ha, to attenuate the post-development peak flows to the allowable release levels (2 year pre-development peak flow) for all storms up to and including the 100 year storm, discharging via the Krieger Municipal Drain.

#### **Watershed A (catchment area 7.8 hectare) - Part Lot 24 Concession 1**

- One (1) grassed swale 590 m long located on the Western property, designed to accommodate up to and including a 100 year storm having a maximum water level of 183.45 m and storage volume of 5,487 m<sup>3</sup> discharging at a maximum release rate of 66.4 L/s through a 450 mm diameter outlet pipe complete with 175 mm orifice plate into the Krieger Drain

#### **Watershed C (catchment area 12.2 hectare) - Part Lot 24 Concession 1**

- One (1) grassed swale 660 m long located between greenhouse phases 6 & 7 and 8 & 9 , designed to accommodate up to and including a 100 year storm having a maximum water level of 183.45 m and storage volume of 9,425 m<sup>3</sup> discharging at a maximum release rate of 106.8 l/s through a 450 mm diameter outlet pipe complete with 225 mm orifice plate, into the Krieger Drain

**Watershed D** (catchment area 6.8 hectare) - Part Lot 24 Concession 1

- One (1) grassed swale 525 m long located on the Eastern property boundary, designed to accommodate up to and including a 100 year storm having a maximum water level of 183.45 m and a storage volume of 5,145 m<sup>3</sup> discharging maximum release rate of 21.2 l/s through a 300 mm diameter outlet pipe complete with 100 mm orifice plate into the Krieger Drain

**23308 Kent Bridge Road - North Pond**

- One (1) existing stormwater management (dry) pond having a maximum water level at an elevation of 183.45 m and a 100 year storage volume of 8,851 m<sup>3</sup> with a 600 mm outlet pipe, set at a slope of 0.45% discharging at maximum release rate of 486.5 l/s through a 600 mm diameter outlet pipe into the Krieger Drain

**23282 Kent Bridge Road - South Pond**

- One (1) existing stormwater management (dry) pond with a calculated 100 year storage volume of 5,149 m<sup>3</sup> discharging at maximum release rate of 500 l/s through a 600 mm diameter outlet pipe into the Krieger Drain

**23250 Kent Bridge Road**

- One (1) existing storm water management (dry) pond having a maximum water at an elevation of 182.85 m with a calculated 100 year storage volume of 11,833 m<sup>3</sup> discharging through a 600 mm pipe with a 409 mm diameter orifice plate bolted inside of a 600 mm diameter, restricting the maximum release rate to 392.12 l/s into the Krieger Drain

all other monitoring and control, electrical equipment instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned stormwater management systems.

All in accordance with the submitted supporting documents 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 Sarnia/Windsor District Office;
6. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
7. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
8. "Grab Sample" or "Grab" 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;
9. "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;
10. "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;
11. "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;
12. "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;
13. "Normal Operating Condition" means the condition when all unit process(es) in a treatment train is operating within its design capacity;
14. "OBC" means the Ontario Building Code, Ontario Regulation 332/12 (Building Code) as amended to January 1, 2015, made under the *Building Code Act*, 1992, S.O. 1992, c. 23;
15. "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;
16. "Owner" means Greenhill Produce (Thamesville) Ltd., including any successors and assignees;
17. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40;
18. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
19. "Sewage Treatment Plant" means all the facilities related to sewage treatment within the sewage treatment



plant site excluding the Final Effluent disposal facilities;

20. "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;
21. "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 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 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. **One (1) week** prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
4. Within **one (1) year** of completion of construction of the Proposed Works, a set of record drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.
5. The Owner shall ensure that the Sewage Treatment and Subsurface disposal System No. 3 is constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied.
6. The Owner shall ensure that an imported soil that is required for construction of any subsurface disposal bed as per this Approval is tested and verified by the Licensed Engineering Practitioner for the percolation time (T) prior to delivering to the site location and the written records are kept at the site.

### **4. DESIGN OBJECTIVES**

1. The Owner shall design and undertake everything practicable to operate the Sewage Treatment and Subsurface Disposal Systems in accordance with the following objectives:

- a. the effluent objectives listed in the table included in **Schedule B**.
  - b. the Maximum Daily Flow of is within the design capacity of 35,000 L/day for each of the Sewage Treatment and Subsurface Disposal Systems No.1, No.2 and No.3.
2. The Owner shall design and undertake everything practicable to operate the Stormwater Management Systems to ensure the final effluent from each of the Stormwater Management Systems 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.

## **5. COMPLIANCE LIMITS**

1. The Owner shall operate and maintain the Sanitary Sewage Treatment Systems No.2 and No.3 such that compliance limits for the effluent discharging into subsurface disposal beds listed in the Table C-1 included in **Schedule C** are met.
2. The Owner shall operate and maintain the Stormwater Management Systems such that compliance limits for the effluent parameters listed in the Table C-2 included in **Schedule C** are met.

## **6. OPERATION AND MAINTENANCE - Sewage Treatment and Subsurface Disposal Systems**

1. The Owner shall ensure that, at all times, the Sanitary Sewage Treatment and Subsurface Disposal Systems 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 for the Sanitary Sewage Treatment and Subsurface Disposal Systems:
  - a. operating procedures under Normal Operating Conditions;
  - b. inspection programs, including frequency of inspection, and the methods or tests employed to detect when maintenance is necessary;
  - c. repair and maintenance programs, including the frequency of repair and maintenance;
  - d. procedures for the inspection and calibration of monitoring equipment;
  - e. operating procedures 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 for the operational life of the Sanitary Sewage Treatment and Subsurface Disposal Systems. Upon request, the Owner shall make the manual available to Ministry staff.
4. 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 or its authorized agent. The maintenance agreement must be retained at the site and kept current for the operational life of the Sanitary Sewage Treatment and Subsurface Disposal Systems.
5. The Owner shall ensure that all septic tanks are pumped out every 3-5 years or when the tank is 1/3 full of solids and the effluent filters are cleaned out at minimum once a year or more often if required.
6. The Owner shall ensure that the oil/grease interceptor is inspected and maintained on regular basis as required, and grease is disposed off site by a licensed hauler (e.g. at approved recycling sites).
7. The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal bed(s), and that adequate steps are taken to ensure that the area of the underground beds is protected from vehicle traffic.
8. The Owner shall visually inspect the general area where Sanitary Sewage Treatment and Subsurface Disposal Systems are located for break-out once every month during the operating season.
9. In the event a break-out is observed from a subsurface disposal bed, the Owner shall do the following:
  - a. sewage discharge to that subsurface disposal system shall be discontinued;
  - b. the incident shall be **immediately** reported verbally to the Spills Action Centre (SAC) at (416) 325-3000 or 1-800-268-6060;
  - c. submit a written report to the District Manager within **one (1) week** of the break-out;
  - d. access to the break-out area shall be restricted until remedial actions are complete;
  - e. during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to the environment; and
  - f. sewage generated at the site shall be safely collected and disposed of through a licensed waste hauler to an approved sewage disposal site.

10. The Owner shall employ for the overall operation of the Sanitary Sewage Treatment and Subsurface Disposal Systems a person who possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Sanitary Sewage Treatment and Subsurface Disposal Systems.
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 operation and maintenance activities required by this Approval.

## **7. OPERATION AND MAINTENANCE - Stormwater Management Systems**

1. The Owner shall inspect the Stormwater Management Systems at least two (2) times per year and, if necessary, clean and maintain the Stormwater Management Systems to prevent the excessive build-up of sediments, oil/grit, and/or vegetation.
2. The Owner shall maintain a logbook to record the results of these inspections and any cleaning and maintenance operations undertaken, and shall keep the logbook available for inspection by the Ministry

## **8. MONITORING AND RECORDING**

1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in **Schedule D** and record all results, as follows:
  - 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. if conditions on the day of sampling of the Stormwater Management Systems exist where there is no flow or standing water, the Owner shall record the condition as "Dry". The Owner shall not incorporate "Dry" conditions in rolling average calculations in accordance with the note "Understanding Four-month Rolling Average" included in **Schedule C**. In situations where "Dry" is recorded, the Owner shall use the four (4) most recent events where a sample was collected in calculating the four-month rolling average.
  - c. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.a.
  - d. definitions for frequency:
    - i. Monthly means once every month;
  - e. The measurement frequencies specified in Schedule D in respect to any parameter may, after two (2) year 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 publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
  - b. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
  - c. for any parameters not mentioned in the documents referenced in Paragraphs 2.a, and 2.b, 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 each sanitary Sewage Treatment Systems No.1, No.2 and No.3 by continuous flow measuring devices and instrumentations/pumping rates, or in lieu of an actual installation of equipment, adopt the flow measurements of the influent for the purpose of estimating final effluent flows if the influent and final effluent streams are considered not significantly different in flow rates and quantities;
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.

## **9. REPORTING - Sewage Treatment and Subsurface Disposal Systems**

1. The Owner shall report to the District Manager orally **as soon as possible** any non-compliance with the compliance limits of the Sewage Treatment and Subsurface Disposal Systems No. 2 and No.3, 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, and submit to the District Manager upon request, a performance report, on an annual basis, within ninety (90) days following the end of 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 monitoring data and a comparison to the effluent objectives/limits of the Sanitary Sewage Treatment and Subsurface Disposal Systems including an overview of the success and adequacy of the of the Sanitary Sewage Treatment and Subsurface

Disposal Systems, and a Contingency Plan in the event of non-compliance with the effluent limits.

- b. a review and assessment of the performance of the Sewage Treatment and Subsurface Disposal Systems, including all treatment units and subsurface disposal beds;
- c. a description of any operating problems encountered and corrective actions taken at all Sewage Treatment and Subsurface Disposal Systems located at the property;
- d. a record of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of all Sanitary Sewage Treatment and Subsurface Disposal Systems located at the property including but not limited to: records of maintenance inspections for the treatment system, records of septic tank effluent filters cleaning, records of septic tank pump-outs, records of sludge pump-outs accumulated from the treatment system, records of visual inspections of all subsurface disposal systems;
- e. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- f. a summary and interpretation of all daily flow data and results achieved in not exceeding the Maximum Daily Flow discharged into each one of the subsurface disposal system;
- g. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- h. a summary of all spill or abnormal discharge events;
- i. any other information the District Manager requires from time to time.

## **10. REPORTING - Stormwater Management Systems**

1. 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.
2. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
3. The Owner shall report to the District Manager orally as soon as possible any non-compliance with the compliance limits of the Stormwater Management Systems, and in writing within seven (7) days of non-compliance.
4. In the event of any non-compliance with the effluent compliance limit for a parameter listed in the table included in **Table C-2 of Schedule C**, during the prescribed monitoring events listed in the table(s)

under the monitoring program included in **Table D-3 of Schedule D**, the Owner shall submit a report to the District Manager within two (2) weeks of the receipt of laboratory sample results. The report shall include the following:

- a. a summary of the non-compliance parameter(s) during that month;
  - b. a copy of the laboratory results; and
  - c. detailed actions that are being implemented to bring the non-compliance into compliance.
5. A new report required by above Subsection 4 shall be submitted every month until all new sampling results are in compliance with the effluent limits listed in **Table C-2 of Schedule C**. Should the Owner be able to demonstrate conclusively through a scientific report that the non-compliance is not a result of greenhouse activities, the Owner may apply to the Director to amend the effluent compliance limit(s) to reflect the background conditions of the site.
6. The Owner shall prepare, and submit to the District Manager upon request, a performance report, on an annual basis, within ninety (90) days following the end of the period being reported upon. The report shall contain, but shall not be limited to, the following information pertaining to the reporting period:
- a. a summary and interpretation of all effluent monitoring data, and a comparison to the compliance limits in this Approval.
  - b. a description of any operating problems encountered and corrective actions taken;
  - c. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Stormwater Management Systems;
  - d. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
  - e. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
  - f. a summary of all by-pass, spill or abnormal discharge events; and
  - g. any other information the District Manager requires from time to time.



## **PROHIBITION**

The Owner shall ensure that the Stormwater Management Systems are operated exclusively for the collection, transmission, treatment and disposal of stormwater runoff. Under **no** circumstance shall any process wastewater (including, but not limited to, the wastewater from irrigation of the plants, the wastewater from the washing of floors/vegetable (if any), floor drain wastewater, or boiler blow downs or condensate) from the site be discharged into the Stormwater Management Systems.

## **Schedule A**

1. Application for Environmental Compliance Approval dated March 9, 2023 and received on March 10, 2023, and submitted by Justin Geertmsema, Vice President of Greenhill Produce (Thamesville) Ltd., for the proposed addition of sanitary sewage treatment and subsurface disposal system No.3 to service new bunkhouses/greenhouse and future development, including design brief, engineering drawings and specifications.

## Schedule B

### SEWAGE TREATMENT AND SUBSURFACE DISPOSAL SYSTEMS

#### Effluent Objectives

Sewage Treatment System No.1 located at 23282 Kent Bridge Road  
For the effluent from the Biofilter Tank, prior to discharging into  
the subsurface disposal bed located at 23250 Kent Bridge Road

Final Effluent Parameter	Averaging Calculator	Concentration Objectives (maximum unless otherwise indicated)
Total Suspended Solids	Single Sample Result	10.0 mg/L*
CBOD5	Single Sample Result	10.0 mg/L

**Note\***<sup>1</sup>: mg/L means milligrams per litre.

## Schedule C

### SEWAGE TREATMENT AND SUBSURFACE DISPOSAL SYSTEMS

#### Table C-1 Effluent Compliance Limits

Sewage Treatment System No.2 located at 23308 Kent Bridge Road  
Sewage Treatment System No.3 located at 23308 Kent Bridge Road

For the final effluent from each Biofilter Tank, prior to discharging into subsurface disposal bed

Final Effluent Parameter	Averaging Calculator	Concentration Limits (maximum unless otherwise indicated)
Total Suspended Solids	Single Sample Result	15.0 mg/L*
CBOD5	Single Sample Result	15.0 mg/L
Total Phosphorus	Single Sample Result	0.7 mg/L

**Note\***<sup>1</sup>: mg/L means milligrams per litre.

## Schedule C

### STORMWATER MANAGEMENT SYSTEMS

**Table C-2 Effluent Compliance Limits  
For the Final Effluent from Each Stormwater Management System**

Effluent Parameter	Concentration Limit (Four-month Rolling Average* <sup>2</sup> otherwise indicated) (maximum unless otherwise indicated)
Total Phosphorus	0.5 mg/L* <sup>1</sup>
Nitrate Nitrogen	20 mg/L
Potassium	25 mg/L
Copper	0.02 mg/L
Chloride	200 mg/L
Sulphate	200 mg/L
Zinc	0.10 mg/L
pH	between 6.5 - 10.0 inclusive ( <b>Single Sample Result</b> )

**Note\*<sup>1</sup>**: mg/L means milligrams per litre.

**Note\*<sup>2</sup>**: For an example of rolling average, see "Understanding Four-month Rolling Average" below.

### Understanding Four-month Rolling Average

A four-month rolling average is an average value based on the four (4) most recent months of data. The average "rolls along" with the most recent data. Rolling average is a useful means of illuminating trends in data where there is wide variation in the data from sample event to sample event.

Sampling Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
P1	0.20	Dry	0.30	0.36	0.55							
P2	0.20	Dry	0.30	0.36	0.55	0.45						
P3	0.20	Dry	0.30	0.36	0.55	0.45	0.25					

For example, from the table above:

- The four-month rolling average for May reporting (for P1) is  $(0.20+0.30+0.36+0.55)/4 = 0.35$
- The four-month rolling average for June reporting (for P2) is  $(0.30+0.36+0.55+0.45)/4 = 0.42$
- The four-month rolling average for July reporting (for P3) is  $(0.36+0.55+0.45+0.25)/4 = 0.40$

**Schedule D**  
**Monitoring Plan**

**SEWAGE TREATMENT AND SUBSURFACE DISPOSAL SYSTEMS**

**Table D-1 Effluent Monitoring**

<b>Sample location</b>	<b>Three (3)</b> sample locations each at the Biofilter Tank of each of the Sewage Treatment Systems No.1, No.2 and No.3
<b>Minimum Frequency</b>	Monthly
<b>Sample Type</b>	Grab
<b>Sample Parameters</b>	CBOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Nitrate and Nitrite Nitrogen

**STORMWATER MANAGEMENT SYSTEMS**

**Table D-2 Effluent Monitoring**

<b>Sampling Location</b>	<b>Three (3)</b> sampling points each at a stormwater management (dry) pond, prior to discharging into the Krieger Drain.  Note: When flow is present, a sample is to be collected at the outlet pipe; if no flow is present and standing water is present, a sample shall be collected from the point in the vicinity of the outlet pipe.
<b>Sampling Type</b>	Grab
<b>Sample Frequency</b>	Monthly (year-round)
<b>Sampling Parameters</b>	Total Suspended Solid, Total Ammonia Nitrogen, Nitrate Nitrogen, Total Phosphorus, Ortho Phosphorus (Phosphorus as Phosphate), Zinc, Copper, Manganese, Iron, Molybdenum, Boron, Chloride, Sulphate, Potassium, Hardness, pH

*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 Proposed 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 also ensure that the Proposed 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. Conditions 6 and 7 regarding operation and maintenance are 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 8 regarding monitoring and recording is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and compliance limits.
8. Conditions 9 and 10 regarding reporting are 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). 9896-BEYK32 issued on October 10, 2019.**

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

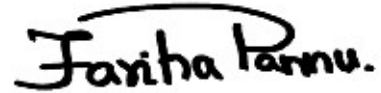
The Director appointed for the purposes of  
Part II.1 of the *Environmental Protection Act*  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* 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 22nd day of January, 2024



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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

Sandra Swanton, K. Smart Associates Limited