Ontario

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

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 9896-BEYK32
Issue Date: October 10, 2019

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

Site Location: Greenhill Produce (Thamesville) Ltd.
23250, 23282 and 23308 Kent Bridge Road
and Part Lot 24 Concession 1 on the River Thames, Geographic Township of Harwich
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:

upgrades to the sewage Works for the collection, transmission, treatment and disposal of stormwater runoff and domestic sewage from a vegetable development (Greenhill Produce) site consisting of the following:

STORMWATER MANAGEMENT WORKS

stormwater management Works 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 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^3 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 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^3 discharging at a maximum release rate of 106.8 l/s through a 450 mm diameter outlet pipe complete with 225 mm orfice plate, into the Krieger Drain

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

- One 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^3 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

DOMESTIC SEWAGE - SUBSURFACE DISPOSAL SYSTEM

subsurface disposal Works to serve the Phase 1 and 2 expansion of the Greenhill Produce greenhouses for the collection, treatment and disposal of domestic sanitary sewage from the washrooms, kitchen and showers

PROPOSED WORKS

Phase 1 Proposed Works rated for 17,000 L/day (23308 Kent Bridge Road)

- 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 Polylok 525 effluent filter, both discharging by gravity to a pump tank

- Two(2) 3,600 L pump tanks, Pump Tank #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 proposed septic tank # 3

- Two(2) 13,600 L septic tanks connected in series, septic #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 Polylok 525 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 #4, equipped with duplex effluent pump rated at 151 l/min with a TDH of 8.5 m discharging to septic tank #5

- Two(2) 18,200 L 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 m3 of Biofilter media with the tanks hydraulically connected by underdrains, with five baskets to be dosed from Biofilter Filter Dosing tank resulting in a peak loading rate of 385 L/m3/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 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 diposal, 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 sodium aluminate to achieve phosphorus removal feeding Septic Tank # 4, #5 and the Waterloo Biofilter Tank

Phase 2 Proposed Works rated for 35,000 L/day (23308 Kent Bridge Road)

- One 6,590 L grease interceptor, grease # 2 receiving kitchen wastewater from the proposed Phase 1 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 @ 8.5m TDH, discharging to Septic Tank #5

- One(1) 40,000 L Biofitler treatment tank, biofilter tank #3, comprising of spray units and three wire mesh baskets filled with contain 9.1 m3 of media, seven of baskets to dosed from Biofilter dosing tank resulting in a peak loading rate of 549 L/m3/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

Leaching Beds west of existing Phase 3 Greenhouse (located at 23308 Kent Bridge Road)

- One(1) chamber equipped with a flowmeter convey waterwater into leaching beds - each cell is be dosed sequentially via automatic rotating value

- Shallow buried trenches consisting of infiltrator quick 4 equalizer 24 LP chambers or approved equivalent having 32 mm PVC pipe, 3mm holes at 1000 mm o/c

- Phase 1 two(2) cells of 6 runs each 30 m long and spaced 3 m centre to centre for a total length of 360 metres

- Phase 2 two(2) cells each having 6 runs of 30 m for a total length of 720 metres

EXISTING WORKS

STORMWATER MANAGEMENT WORKS

23308 Kent Bridge Road - North Pond

- One(1) existing storm water 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^3 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 storm water management (dry) pond with a calculated 100 year storage volume of 5,149 m^3 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^3 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

SUBSURFACE DISPOSAL SYSTEM

Septic Tanks and Treatment Units (23250 Kent Bridge Road)

- new domestic sewage Works with subsurface disposal system designed for a maximum rated capacity of 35,000 L/d to service existing and proposed bunkhouses and greenhouse washroom facilities Greenhill Hill facilities located at the above noted site location and comprising of the following:

- 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 a proposed (Phase 5) bunkhouse to be 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^3 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.

- TKS-50-PVC flowmeter located in underground chamber metering flow from Biofilter Tank # 3

Leaching Beds (23250 Kent Bridge Road)

- A shallow buried trench disposal system 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^2, 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 subgrade and backfilled with sand having a percolation time of T <20 min/cm

- 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;
- all existing subsurface disposal beds circa 2017 will be decommissioned

all other monitoring and control, electrical equipment instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned works

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

"Approval" means this entire document and any schedules attached to it, and the application;

BOD5" (also known as $TBOD_5$) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;

"CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

"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;

"District Manager" means the District Manager of the Sarnia District Office;

"Domestic Sewage System" means the entire septic tanks, biofilter tanks, pumps and treatment equipment;

"*E. coli* " refers to the thermally tolerant forms of Escherichia that can survive at 44.5 degrees Celsius;

"EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;

"Geometric Mean Density" is the nth root of the product of multiplication of the results of n number of samples over the period specified;

"Influent" means flows to the Domestic Sewage System through the collection system, excluding all process return flows;

"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;

"Monthly Average Concentration" means the arithmetic mean of all Single Sample Concentrations of a contaminant in the Final Effluent sampled or measured, or both, during a calendar month;

"Owner" means Greenhill Produce Ltd. and its successors and assignees;

"OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;

"Previous Works" means those portions of the Works constructed under a previous approval or retroactively approved under this Approval;

"Proposed Works" means those portions of the Works to be constructed under this Approval;

"Rated Capacity" means the Maximum Daily Flow for which the Domestic Sewage System is designed to handle;

"Rolling Average" means a four month rolling average is an average value based on the 4 most recent months of data. The average “rolls along” with the most recent data.

"Single Sample Concentration" means the concentration of a contaminant in the effluent discharged on any day, as measured by a composite or grab sample, whichever is required;

"Works" means the sewage works described in the Owner's application, and this Approval, and includes Proposed Works and Previous Works.

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

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2. Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.

3. Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.

4. Where there is a conflict between the documents listed in the Schedule, and the application, the application shall take precedence unless it is clear that the purpose of the document in the schedule was to amend the application.

5. The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or

unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

6. The issuance of, and compliance with the Conditions of this Approval does not:

   a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approval from the local conservation authority necessary to construct or operate the sewage Works; or

   b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

2. EXPIRY OF APPROVAL

1. The authorization provided by this Approval will cease to apply to those parts of the Works which have not been constructed within ten (10) years of the date of this Approval.

2. In circumstances when greenhouses are not developed as currently planned and the changes will trigger modifications to the approved stormwater management works, the Owner may need to apply for an amendment to this Approval.

3. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:

   a. change of Owner;

   b. change of address of the 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.B17 shall be included in the notification to the District Manager*;* and

   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. C39 shall be included in the notification to the District Manager.

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

PART II - STORMWATER MANAGEMENT WORKS

4. EFFLUENT LIMITS

1. The Owner shall operate and maintain the Works such that the four (4) month rolling average concentrations of the materials named in Effluent Limit Table (Table 1) in **"Schedule B"** as effluent parameters are not exceeded in the effluent from the Works.

2. Notwithstanding any other conditions of this Approval, the Owner shall ensure that the effluent from the Works is essentially free of floating and settable 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. OPERATION AND MAINTENANCE

1. The Owner shall inspect the Works at least two (2) times per year and, if necessary, clean and maintain the Works 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.

6. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the Works, carry out the following monitoring program:

1. All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

2. Samples shall be collected at the sampling station(s), at the sampling frequencies and using the sample type specified for each parameter listed in the Table 2 - Effluent Monitoring (Stormwater Pond), as outlined in **"Schedule C**".

3. 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 from time to time by

more recently published editions;

b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions; and

c. an approved method that meets the same data quality objectives specified in either of the above documents.

4. The sampling frequencies and parameters specified in subsection (2) are minimum requirements which may, after twelve (12) months of monitoring in accordance with this Condition, be modified by the Director in writing from time to time. The sampling frequencies and/or parameters specified may be reduced where authorized in writing by the Director if the Owner is able to demonstrate satisfactory performance for two (2) consecutive years.

5. In the event of an exceedance of the four (4) month rolling average concentration values of the trigger parameters listed in Table 3 - Trigger Concentration Values for Monitoring, as outlined in "**Schedule D**", during the prescribed monitoring events listed in Table 2, as outlined in " **Schedule C**", the Owner shall develop a contingency plan within three (3) months of such an occurrence evaluating the root cause for the exceedance, and recommending actions/ measures to be taken to prevent future occurrences of such events, and submit the plan to the District Manager for review and approval.

6. Once accepted by the District Manager, the Owner shall implement the contingency plan within three (3) months of receiving approval.

7. REPORTING

1. In addition to the obligations under Part X of the EPA, the Owner shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

2. The Owner shall report to the District Manager or designate, any exceedance of any parameter specified in Condition 4 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.

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

4. The Owner shall prepare, and submit to the District Manager upon request, a performance report, on an annual basis, by April 1 for the previous calendar year. The report shall contain, but shall not be limited to, the following information:

a. a summary and interpretation of all monitoring data and a comparison to the concentration limits and trigger concentration values of the parameters outlined in Condition 4 and 6;

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 Works;

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;

g. any other information the District Manager requires from time to time.

PROHIBITION

The Owner shall ensure that the Stormwater Management Facilities 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 Facilities.

PART III - DOMESTIC SEWAGE SYSTEM - SUBSURFACE DISPOSAL

8. CONSTRUCTION

(1) The Owner shall ensure that the construction of the Works is supervised by a Licensed Installer or a Professional Engineer, as defined in the Professional Engineers Act.

(2) The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the Ontario Building Code are satisfied.

(3) The Owner shall ensure that the Waterloo Biofilter Tanks installed in accordance with the Manufacturer's Installation Manual.

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

(5) Upon construction of the Works, as-built drawing(s) showing the Works "as constructed" shall be

prepared by the Licensed Installer or a Professional Engineer. The drawing(s) shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the location of the Works for the operational life of the Works.

9. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the Works,carry out the following monitoring program:

(1) All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

(2) Samples shall be collected of the effluent being discharged to the subsurface disposal system at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 1 - Raw Sewage Monitoring	
Sampling Location	upstream of the subsurface treatment systems located at 23250 and 23308 Kent Bridge Road
Frequency	Monthly
Sample Type	Grab
Parameters	BOD_5, Total Suspended Solids, Total Kjeldahl Nitrogen and Total Phosphorus

Table 2 - Effluent Monitoring	
Sampling Location	(at outlets of Waterloo Biofilter located at 23250 and 23308 Kent Bridge Road)
Frequency	Monthly
Sample Type	Grab
Parameters	$CBOD_5$, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Nitrate and Nitrite Nitrogen

(3) The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

(a) the Ministry's Procedure F-10-1, “Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended from

time to time by more recently published editions;

(b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions; and

(c) the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.

(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.

10. EFFLUENT OBJECTIVES

(1) The Owner shall use best efforts to design, construct and operate the Works with the objective that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent being discharged to the subsurface disposal system.

Table 4a - Effluent Objectives
(at outlet of Waterloo Biofilter)
located at 23250 Kent Bridge Road

Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)
Column 1	Column 2
$CBOD_5$	<10
Total Suspended Solids	<10

Table 4b - Effluent Objectives
(at outlet of Waterloo Biofilter)
located at 23308 Kent Bridge Road

Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)
Column 1	Column 2
$CBOD_5$	<10
Total Suspended Solids	<10
Total Phosphorus	<0.6

(2) For the purposes of subsection (1):

(a) The concentrations of CBOD5, TSS and TP named in Column 1 as measured at each monitoring event, should be compared to the corresponding concentrations set out in Column 2 of the Effluent Objectives in Tables 4a and 4b.

11. EFFLUENT LIMITS

(1) The Owner shall design, construct, operate and maintain the Works such that the concentrations of the materials named in Table 5 below as effluent parameters are not exceeded in the effluent from the Works:

Table 5 - Effluent Limit
(at outlet of Waterloo Biofilter)
located at 23308 Kent Bridge Road

Effluent Parameter	**Concentration Limit** (milligrams per litre unless otherwise indicated)
Column 1	Column 2
$CBOD_5$	15
Total Suspended Solids	15
Total Phosphorus	0.7

(2) For the purposes of determining compliance with and enforcing subsection (1):

(a) The monthly average concentration of $CBOD_5$ & TSS named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).

12. OPERATIONS AND MAINTENANCE

(1) The Owner shall exercise due diligence in ensuring that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, including training in all procedures and other requirements of this Approval and the Act and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the Works.

(2) The Owner shall 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.

(3) The Owner shall ensure that the maximum daily sewage flow to the existing system subsurface systems does not exceed the stated capacities as follows:

Existing (23250 Kent Bridge Road) Q= 35,000 L/day

Proposed Phase 1 (23308 Kent Bridge Road) Q=17,000 L/day

Proposed Phase 1 and 2 (23308 Kent Bridge Road) Q=35,000 L/day

(4) The Owner shall prepare an operations and maintenance manual within six (6) months of the date of issuance of this Approval.

(5) The above operations and maintenance manual shall include, but not necessarily limited to, the following information:

(a) operating procedures for routine operation of the Works;

(b) inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;

(c) repair and maintenance programs, including the frequency of repair and maintenance for the Works;

(d) procedures for the inspection and calibration of monitoring equipment;

(e) a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the District Manager; and

(f) procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.

(6) The Owner shall maintain the operations manual current and retain a copy at the location of the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.

(7) The Owner shall ensure that the septic tanks are inspected at a minimum frequency of once every year and pumped-out by a licensed hauler if necessary, with a minimum pump-out frequency of at least once per three to five year period (when sludge accumulation reaches one-third of the effective volume).

(8) The Owner shall ensure that the effluent filters are cleaned out at a minimum frequency of once a year or more often if recommended by the manufacturer.

(9) The Owner shall maintain and service the Works in such a manner that leaks and spills are prevented and use best efforts to immediately identify and clean up all spills.

(10) The Owner shall sign a Service and Maintenance Agreement with the manufacturer or approved agent of the WBS Tertiary Sewage Treatment Plant. The maintenance agreement must be retained at the site for

as long as the Works are in operation, kept current and made available for inspection by the Ministry staff.

(11) The Owner shall receive from the manufacturer or distributor of the Waterloo Biofilter System (WBS) Tertiary Sewage Treatment Plant printed literature that describes the equipment in detail and provides complete instructions regarding the operation, servicing, and maintenance requirements of the equipment and its related components necessary to ensure the continued proper operation in accordance with the original design and specifications.

(12) The Owner shall ensure that the Waterloo Biofilter System (WBS) Tertiary Sewage Treatment Plant is inspected annually by the manufacturer of the treatment process/technology or its authorized agent, and operated and maintained according to the manufacturer's recommendations.

(13) The Owner shall ensure that effluent dosing pumps are inspected, tested and calibrated on annual basis, to ensure compliance with this Approval.

(14) The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal systems, and that adequate steps are taken to ensure that the area of the underground works is protected from vehicle traffic. The Owner shall ensure that the drainage operations in the subsurface disposal systems are visually observed on a monthly (once every month) basis.

(15) The Owner shall ensure that in the event a breakout is observed from the subsurface disposal systems, the sewage discharge to the subsurface disposal systems is discontinued and the incident immediately reported verbally to the District Manager, followed by a written report within seven (7) days. The Owner shall ensure that during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to a surface water body or to the environment, and safely collected and disposed of through a licensed waste hauler to an approved waste disposal site.

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

(17) 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.

13. REPORTING

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

(2) The Owner shall prepare, and submit upon request, a performance report, on an annual basis, within ninety (90) days following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

(a) a summary and interpretation of all monitoring data and a comparison to the Effluent Objectives outlined in Condition 9;

(b) a tabulation of the daily volumes of effluent disposed through the subsurface disposal system during the reporting period;

(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works; and

(d) a description of any operating problems encountered and corrective actions taken.

(3) 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.

14. CERTIFICATE OF REQUIREMENT

Pursuant to Section 103 of the Ontario Water Resources Act, no person having an interest in the Property , shall deal with the Property in any way without first giving a copy of this Approval to each person acquiring an interest in the Property as a result of the dealing.

(1) The Owner shall:

i. within sixty (60) days of the date of the issuance of this Approval, submit to the Director for their review, two copies of a completed Certificate of Requirement and a registerable description of the Property; and

ii. within ten (10) calendar days of receiving the Certificate of Requirement authorized by the Director, register the Certificate of Requirement in the appropriate Land Registry Office on title to the Property and submit to the Director the duplicate registered copy immediately following registration.

(2) For the purposes of this condition, Property shall mean the property located at:

23308, 23282, 23250 Kent Bridge Road

PROHIBITION

The Owner shall ensure that the Sewage Treatment System is operated exclusively for the collection, transmission, treatment and disposal of domestic sewage. 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) generated from the site be discharged into the Sewage Treatment System.

Schedule A

1. Application for Environmental Compliance Approval submitted by Sandra Swanton of K.Smart Associates Limited on April 25, 2019 for the proposed Greenhill Produce greenhouse expansion, including design report, final plans and specifications.

"Schedule B"

Table 1 - Effluent Limits (Stormwater Pond)

Effluent Parameter	**Concentration Limit** **Four (4) month Rolling Average** (Note 1 see below) (milligrams per litre unless otherwise indicated)
Total Phosphorus	0.5
Nitrate Nitrogen	20
Potassium	25
Copper	0.02
Chloride	200
Sulphate	200
Zinc	0.10

pH of the effluent maintained between 6.5 to 10.0 (Note 2 see below)
Note 1: For an example of rolling average, see "Understanding Rolling Average" below.
Note 2: pH would be individual event discreet sample, not a four (4) month rolling average.

Understanding Rolling Average

A four month rolling average is an average value based on the 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	0.30	0.36	0.55	0.45	0.20	0.30					
P2	0.20	0.30	0.36	0.55	0.45	0.20	0.30	0.25				
P3	0.20	0.30	0.36	0.55	0.45	0.20	0.30	0.25	0.15			

For example: from the Table above:

- the 4 month rolling average for July reporting (for P1) is (0.55+0.45+0.20+0.30)/4=0.37
- the 4 month rolling average for August reporting (for P2) is (0.45+0.20+0.30+0.25)/4=0.30
- the 4 month rolling average for September reporting (for P3) is (0.20+0.30+0.25+0.15)/4=0.22

"Schedule C"

Table 2 - Effluent Monitoring (Stormwater Pond)

Sampling Station	(for Stormwater Ponds as required) Effluent from the stormwater detention pond, or in the stagnant pond in the vicinity of the outlet when no discharge occurring and which is representative of the volume of stormwater as a whole.
Sampling Type	Grab
Sample Frequency	Monthly (year-round)
Sampling Parameters	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

"Schedule D"

Table 3 - Trigger Concentration Values for Monitoring

Trigger Parameter	**Concentration - four (4) monthly rolling average** (milligrams per litre)
Nitrate Nitrogen	15
Total Phosphorus	0.3
Potassium	20
Total Suspended Solid	30

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

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which Approval was granted. This Condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The Condition also advises the Owners their responsibility to notify any person they authorized to carry out work pursuant to this Approval of the existence of this Approval.

2. Condition 2 is imposed to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

3. Condition 3 is imposed to ensure that the Ministry records are kept accurate and current with respect to approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

4. Condition 4 is imposed to ensure that the effluent discharged from the stormwater management works to the receiver meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.

5. Condition 5 & 12 is included to require that the Works be properly operated, maintained, and equipped such that the environment is protected. As well, the inclusion of an operations manual, maintenance agreement with the manufacturer for the treatment process/technology and a complete set of "as constructed" drawings governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the owner and made available to the Ministry. Such information 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 work.

6. Condition 6 and 9 ares 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 specified in the Approval and that the Works does not cause any impairment to the receiving watercourse.

7. Condition 7 & 13 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

8. Condition 8 are imposed to ensure that the Works are constructed, and may be operated and maintained such that the environment is protected and deterioration, loss, injury or damage to any person or property

is prevented.

9. Condition 10 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.

10. Condition 11 is imposed to ensure that the effluent discharged from the Works to the groundwater meet the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.

11. Condition 14 is included in order to require the Owner to give notice of this Approval to potential future owners of the property before the property is dealt with.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5176-AP8NTB issued on October 16, 2017

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.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The 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**

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 10th day of October, 2019

Fariha Pannu.

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

WS/
c: Area Manager, MECP Windsor
c: District Manager, MECP Sarnia
Sandra Swanton, P.Eng., K. Smart Associates Limited