

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5051-BDWH3X

Issue Date: July 31, 2019

The Green Organic Dutchman Ltd.
1915 Jerseyville Road West
Hamilton, Ontario
L0R 1R0

Site Location: Jerseyville Greenhouse Facility
1915 Jerseyville Road West
City of Hamilton, 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:

Stormwater Management Facilities serving greenhouse site with 3.695 hectares of greenhouses and parking lot area, to provide quality control and attenuate post-development peak flows to pre-development levels for all storm events up to and including the 100 year return storm, consisting of the following:

Stormwater Management Facilities

- roof water drainage pipe systems, discharging roof-top runoff into a stormwater detention/irrigation pond (West Pond);
- one (1) stormwater management/irrigation pond (West Pond), having an active storage volume of 894 cubic metres for the 100 year storm event and a permanent storage volume of 5,248 cubic metres for irrigation, complete with overflow spillway and an outlet pipe with a 125 millimetre diameter orifice, with a controlled maximum release rate of 73 litres per second for the 100 year storm event, discharging into a level spreader swale, which then routes effluent overland toward a tributary of Big Creek;
- stormwater collection sewer system, accepting surface runoff from parking lot and other surface area, discharging into an oil/grit separator;
- one (1) oil/grit separator - Stormceptor STC 4000, with a sediment volume of 16,490 litres, discharging into a stormwater management dry pond (East Pond);
- one (1) stormwater management dry pond (East Pond), having an active storage volume of 1,093 cubic metres for the 100 year storm event, complete with overflow spillway and an outlet pipe with a 100

millimetre diameter orifice, with a controlled maximum release rate of 30 litres per second for the 5 year storm event or 167 litres per second for the 100 year storm event, respectively, discharging into the above mentioned level spreader swale, which then routes effluent overland toward Big Creek;

Reverse Osmosis (RO) Wastewater Discharge

- sewers accepting the backwash wastewater from a groundwater Reverse Osmosis (RO) Treatment Unit, having a maximum discharge rate of 20,000 litres per day, discharging, via a pipe to a 41 metre long rip-rap lined channel connected to a 135 metre long swale in the property, to a rip-rap outfall at Big Creek;

including erosion/sedimentation control measures during construction and all other controls and appurtenances essential for the proper operation of the aforementioned Works.

All in accordance with the supporting documents set out in **Schedule A** attached to this Approval.

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

1. "Approval" means this entire document and any schedules attached to it, and the application;
2. "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;
3. "District Manager" means the District Manager of the Hamilton District Office;
4. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
5. "Individual Waste Loading" means the loading expressed in grams per day and calculated by multiplying the concentration of a parameter in a sample by the total volume of effluent discharged from the Works during the day in which the sample is taken;
6. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
7. "Owner" means The Green Organic Dutchman Ltd., and includes its successors and assignees;
8. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;
9. "Single Sample Concentration" means the concentration 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; and
10. "Works" means the sewage works described in the Owner's application, and this Approval.

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.

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.

4. EFFLUENT LIMITS

1. The Owner shall operate and maintain the Stormwater Management Facilities such that the four (4) month rolling average concentrations of the materials named in Effluent Limit Table 1 in **Schedule B** as effluent parameters are not exceeded in the effluent.
2. The Owner shall operate and maintain the Reverse Osmosis (RO) wastewater discharge that **two (2) consecutive (monthly sampling)** Single Sample Concentrations and Individual Waste Loading of the materials named in Effluent Limit Table 2 in **Schedule B** as effluent parameters are not exceeded in the effluent.
3. 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

1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled effluent and surface water 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 Tables 3, 4 and 5 in Schedule C and record all results, as follows:
 - a. all samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.
 - b. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.b.
 - c. definitions for frequency:
 - i. Monthly means once every month
 - ii. Quarterly means once every three months
2. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:
 - a. the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended from time to time by more recently published editions;
 - b. 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; 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.
3. The sampling frequencies and parameters specified in subsection (1) 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.
4. In the event of an exceedance of the four (4) month rolling average concentration values of the trigger parameters listed in Table 6 - Trigger Concentration Values for Monitoring, as outlined in **Schedule D**, during the prescribed monitoring events listed in Table 3, 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.

5. In the event of an exceedance of Single Sample Concentration values of any parameter listed in Table 2 - Effluent Limits - Reverse Osmosis (RO) Wastewater Discharge, as outlined in **Schedule B**, during the prescribed monitoring events listed in Table 4, 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 upon request submit to the District Manager, 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.

Schedule A

1. Application for Environmental Compliance Approval October 18, 2018 and received on October 23, 2018, submitted by Marc Cernovitch, Executive VP, Project Operations, The Green Organic Dutchman Ltd., for the proposed stormwater management facilities and RO wastewater discharge, serving a green house development, including design brief, final plans and specifications.

Schedule B

Table 1 - Effluent Limits - Stormwater Detention Ponds

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
Total Suspended Solid (TSS)	60

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 discrete 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 $(0.20+0.30+0.25+0.15)/4=0.22$

Table 2 - Effluent Limits - Reverse Osmosis (RO) Wastewater Discharge

Effluent Parameter	Single Sample Concentration Limit (milligrams per litre (mg/L))	Individual Waste Loading Limit* (grams per day (g/day))
Total Suspended Solid	58	1160
Boron (total)	7.2	144
Chloride	3,272	65,440
Cobalt (total)	0.03	0.6
Copper (total)	0.12	2.4
Iron (total)	0.75	15
Molybdenum (total)	1.88	38
Zn (dissolved)	1.40	28
Phosphorus (total)	0.1	2
Hydrogen Sulphide (undissociated)	0.05	1
Ammonia (total as N)	8	160

*Note: calculated at maximum discharge rate of 20,000 litres per day

Schedule C

Table 3 - Effluent Monitoring (stormwater detention ponds)

Sampling Station	Two (2) monitoring stations as follow: effluent from each of the two (2) stormwater detention ponds during a discharge event, or in the stagnant ponds in the vicinity of each 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 (total), Zinc(dissolved), Copper, Manganese, Iron, Molybdenum, Boron, Chloride, Sulphate, Potassium, Hardness, temperature (field), pH(field), unionized-ammonia nitrogen (calculated)

Table 4 - Effluent Monitoring (RO Wastewater)

Sampling Station	RO effluent at the outfall into Big Creek
Sampling Type	Grab
Sample Frequency	Monthly during operation
Sampling Parameters	Total Suspended Solid, Boron (total), Chloride, Cobalt (total), Copper (total), Iron (total); Molybdenum (total), Zn (dissolved), Phosphorus (total), Hydrogen Sulphide (undissociated); Ammonia (total as N), pH (field), temperature (field), unionized-ammonia nitrogen (calculated)

Table 5 - Surface Water Monitoring (RO Wastewater)

Sampling Station	Two sampling stations: 1) Big Creek Main Branch upstream of the RO effluent discharge; and 2) Big Creek Main Branch downstream of the RO effluent discharge
Sampling Type	Grab
Sample Frequency	Quarterly, coincident with the RO effluent sampling
Sampling Parameters	Total Suspended Solid, Boron (total), Chloride, Cobalt (total), Copper (total), Iron (total); Molybdenum (total), Zn (dissolved), Phosphorus (total), Hydrogen Sulphide (undissociated); Ammonia (total as N), pH (field), temperature (field), unionized-ammonia nitrogen (calculated), dissolved organic carbon (DOC) and hardness

Schedule D

Table 6 - 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 the existence of this Approval.
2. Condition 2 is included to ensure that the Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction, to ensure the ongoing protection of the environment.
3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the 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 Works to the receiver meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.
5. Condition 5 is included to require that the Works be properly operated and maintained such that the environment is protected.
6. Condition 6 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives specified in the Approval.
7. Condition 7 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.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

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

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

This Notice must be served upon:

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

AND

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

AND

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

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

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 www.ebr.gov.on.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 31st day of July, 2019



Youssef Kalogo, P.Eng.

Director

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

NH/

c: District Manager, MECP Hamilton District Office
Kevin Fitzpatrick, WSP Canada Inc.