

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 1389-BTVRDM

Issue Date: December 29, 2020

2443267 Ontario Limited
2039 Cordukes Rd
Kingston, Ontario
K7L 4V4

Site Location: 2039 Cordukes Road
City of Kingston, County of Frontenac, Ontario
K7L 4V4

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:

proposed sewage Works for the treatment and subsurface disposal of domestic sewage, with a daily sanitary sewage flow of 28,875 litres per day to service ninety-seven (97) recreational vehicle (RV) sites and eight (8) cabins, and existing sewage Works for the treatment and subsurface disposal of domestic sewage, with a daily sanitary sewage flow of 14,020 litres per day to service eight (8) RV sites, fourteen (14) cabins, one (1) office/store and one (1) rec hall, for a total daily sanitary sewage flow of 42,895 litres per day, that is seasonally operated from May to October and located at the above Site Location, consisting of the following:

PROPOSED WORKS

Wastewater Treatment System

- one (1) 18,000 litre pre-treatment chamber, providing primary screening of raw sewage from the new or upgraded RV sites and cabins, and discharging effluent to the Norweco Modulair system described below.
- one (1) Norweco Modulair system (Model CR-90 or Equivalent Equipment), consisting of two (2) aeration chambers and one (1) clarification chamber, having a maximum treatment capacity of 34,068 litres per day and a retention time of 24 hours, receiving sewage from the pre-treatment chamber and discharging effluent to the Nitrex denitrification filter system described below.
- one (1) Nitrex denitrification filter system, consisting of two (2) 31,500 litre concrete tanks each with 32 cubic metres of reactive media, arranged in parallel, receiving sewage from the Norweco

Modular system and discharging effluent to the pump chamber described below.

Pump Chamber

- one (1) 18,000 litre pump chamber, equipped with two (2) Hydromatic SHEF45 effluent pumps (or Equivalent Equipment) and a high level audible/visual alarm, receiving sewage from the Nitrex denitrification filter system and discharging effluent to the Type A dispersal bed described below.

Type A Dispersal Bed

Q = 28,875 litres per day

- one (1) Type A dispersal bed, consisting of a stone layer having an area of 589 square metres, a thickness of 300 millimetres and protected with a permeable geo-textile fabric, overlying a sand layer having an area of 3,678 square metres and a thickness of 300 millimetres, complete with sixteen (16) runs of 27.43 metre long 100 millimetre diameter perforated PVC distribution pipes spaced 1.2 metres apart, centre to centre, in the stone layer, and a sand mantle extending a minimum of 15 metres beyond the outermost edge of the stone layer in any direction in which the effluent entering the soil will move horizontally away from the dispersal bed.

EXISTING WORKS

Septic Tank

- one (1) existing 37,854 litre two-compartment precast concrete septic tank, receiving raw sewage from the existing facilities (RV sites, cabins, office/store and rec hall) described above and discharging effluent to the pump chamber described below.

Pump Chamber

- one (1) existing 9,940 litre pump chamber, receiving sewage from the septic tank above and discharging effluent to the siphon described below.

Siphon Chamber

- one (1) existing 3,785 litre siphon chamber, receiving sewage from the pump chamber above and discharging effluent to the two (2) existing leaching beds described below.

Absorption Trench Leaching Bed No. 1

Q = 14,100 litres per day

- one (1) existing absorption trench leaching bed, consisting of nineteen (19) runs of 21 metre long 100 millimetre diameter PVC distribution piping and eleven (11) runs of 15 metre long 100 millimetre diameter PVC distribution piping (for a total length of 564 metres of distribution piping).

Absorption Trench Leaching Bed No. 2

Q = 3,528 litres per day

- one (1) existing absorption trench leaching bed, consisting of twenty-eight (28) runs of 27 metre long 100 millimetre diameter PVC distribution piping and six (6) runs of 21 metre long 100 millimetre diameter PVC distribution piping (for a total length of 882 metres of distribution piping).

including all other controls, electrical equipment, instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned sewage works.

all in accordance with the supporting documentation submitted to the Ministry as listed in the Schedule A of this Approval.

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

1. "Approval" means this entire Approval document and any Schedules to it, including the application and Supporting Documentation;
2. "CBOD₅" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
3. "Director" means a person appointed by the Minister pursuant to Section 5 of the EPA for the purposes of Part II.I of the EPA;
4. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
5. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
6. "Equivalent Equipment" means a substituted equipment or like-for-like equipment that meets the required quality and performance standards of a named equipment;
7. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
8. "Licensed Installer" means a person who is registered under the OBC to construct, install, repair, service, clean or empty on-site sewage systems;
9. "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;
10. "OBC" means the Ontario Building Code;
11. "Owner" means 2443267 Ontario Limited and its successors and assignees;

12. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended;
13. "Professional Engineer" means a person entitled to practice as a Professional Engineer in the Province of Ontario under a licence issued under the Professional Engineers Act;
14. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
15. "Seasonal Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the final effluent sampled or measured, or both, during a seasonal discharge period;
16. "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 submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document 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.

2. EXPIRY OF APPROVAL

1. This Approval will cease to apply to those parts of the Works which have not been constructed within **five (5) 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;
 - 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 Informations 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.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

4. CONSTRUCTION

1. The Owner shall ensure that the construction of the Proposed 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 Norweco Modulair and Nitrex denitrification filter systems are installed in accordance with the manufacturer's installation manual.
3. The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied.
4. Upon construction of the Proposed Works, the Owner shall prepare a statement, certified by 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.
5. Upon construction of the Proposed Works, the Owner shall prepare a set of as-built drawings

showing the works "as constructed", which shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the site for the operational life of the Works.

5. 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 as effluent parameters in Effluent Objectives Table listed in **Schedule B** are not exceeded in the effluent being discharged to the subsurface disposal system.
2. For the purposes of subsection (1):
 - a. The Seasonal Average Effluent Concentration of parameters in Column 1 of Effluent Objectives Table listed in **Schedule B** should be compared to the corresponding concentration set out in Column 3 of Effluent Objectives Table listed in **Schedule B**.

6. OPERATIONS AND MAINTENANCE

1. The Owner shall ensure that at all times, the Works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained as required per the operation and maintenance manual.
2. The Owner shall prepare an operations manual within six (6) months of the introduction of sewage to the Works, that includes, but not necessarily limited to, the following information:
 - a. operating procedures for routine operation of all the Works;
 - b. inspection programs, including frequency of inspection, for all 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 all the Works; copies of maintenance contracts for any routine inspections & pump-outs should be included for all the tanks and treatment units;
 - 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.
3. 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.

4. The Owner shall, upon the 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 Works.
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 grass-cutting is maintained regularly over all the subsurface disposal beds, and the surface of the bed(s) are visually observed on a monthly basis. In the event a break-out is observed from a subsurface disposal bed, the Owner shall ensure that the sewage discharge to the bed is discontinued and the incident immediately reported verbally to the District Manager, followed by a written report within one (1) week. 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 shall be safely collected and disposed off through a licensed waste hauler to an approved waste disposal site.
7. The Owner shall ensure that adequate steps are taken to ensure that the area of the Works are protected from all forms of vehicle traffic.
8. 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.
9. 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.

7. MONITORING AND RECORDING

1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in **Schedule C** and record all results, as follows:
 - a. all samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.
 - b. definitions and preparation requirements for each sample type are included in document

referenced in Condition 7.5.b.

c. definitions for frequency:

i. Monthly means once every month.

2. Prior to the startup of the Works, background groundwater quality must be established by collecting groundwater samples and having them analyzed for the parameters listed in the Groundwater Monitoring Table included in **Schedule C**.
3. The Owner shall assess the groundwater monitoring data collected in accordance with the Groundwater Monitoring Table in **Schedule C** against Reasonable Use Guideline B-7 (RUG) and include assessment results in the annual reports specified in Condition 8.4.
4. In the event that the RUG is assessed to be not met or unlikely to be met, the Owner shall submit a proposal to the Director with written notification to the District Manager outlining how the Site will be brought into compliance with the RUG. The Owner shall implement the agreed upon plan within the time frame approved by the Director.
5. 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" (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.
6. The Owner shall employ measurement devices to accurately measure quantity of effluent being discharged to each individual subsurface disposal system, including but not limited to water/wastewater flow meters, event counters, running time clocks, or electronically controlled dosing, and shall record the daily volume of effluent being discharged to the subsurface disposal system.
7. The Owner shall ensure that flow of treated effluent discharged into the Type A dispersal bed does not exceed 28,875 litres per day and flow of treated effluent discharged into the existing absorption trench leaching beds does not exceed 14,020 litres per day.

8. The measurement parameters, frequencies and locations specified in subsection 1 in respect to any parameter are minimum requirements which may, after **three (3) years** of monitoring in accordance with this Condition, be modified by the Director in writing from time to time after consulting the District Manager upon reviewing annual monitoring and performance report.
9. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

8. REPORTING

1. 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, within fifteen (15) days of occurrence of a spill within the meaning of Part X of the EPA, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation, in addition to fulfilling the requirements under the EPA and O. Reg. 675/98 "Classification and Exemption of Spills and Reporting of Discharges".
3. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
4. The Owner shall prepare and submit a performance report, on an annual basis, within ninety (90) days following the end of each operational season to the District Manager. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:
 - a. a summary and description of efforts made and results achieved in meeting the Effluent Objectives in Condition 5;
 - b. a summary and interpretation of all monitoring data and a comparison to the Effluent Objectives in Condition 5 including an overview of the success and adequacy of the Works;
 - c. a summary and interpretation of groundwater monitoring data including shallow groundwater flow direction, interpretation of analytical results, calculation of the RUG limit for nitrate nitrogen concentration, and comparison with the RUG limits for Nitrate Nitrogen concentration in accordance with the Reasonable Use Guideline B-7 (RUG);
 - d. a review and assessment of performance of sewage works, including all treatment units and disposal beds;

- e. a description of any operating problems encountered and corrective actions taken at all sewage Works located at the property;
- f. a record of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of all Works 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 disposal systems;
- g. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- h. a summary and interpretation of all daily flow data and results achieved in not exceeding the maximum daily sewage flow discharged into the subsurface disposal system;
- i. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- j. a summary of all spill or abnormal discharge events; and
- k. any other information the District Manager requires from time to time.

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

1. Condition 1 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, 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 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 included 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.
5. Condition 5 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.
6. Condition 6 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.
7. Condition 7 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 and that the Works does not cause any impairment to the receiving watercourse.
8. Condition 8 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.

Schedule A

1. Application for Environmental Compliance Approval dated January 20, 2020 and received on January 22, 2020, and submitted by 2443267 Ontario Limited for the proposed sewage treatment and subsurface disposal systems, including the design brief, final plans, specifications and all supporting documentation and correspondence submitted in support of this application.
2. Site Plan (Drawing #C-102) dated December 18, 2020, prepared and stamped by Martin Burger, P.Eng. of Groundwork Engineering Ltd.

Schedule B

Effluent Objectives Table

Final Effluent Parameter (tested on outlet from the final treatment system upstream of the Type A dispersal bed)	Averaging Calculator	Concentration Objective (milligrams per litre unless otherwise indicated)
Column 1	Column 2	Column 3
CBOD ₅	Seasonal Average Effluent Concentration	10
Total Suspended Solids	Seasonal Average Effluent Concentration	10

Schedule C

Effluent Monitoring Table

Sampling Location	Outlet from the final treatment system upstream of the Type A dispersal bed
Frequency	Monthly during the operating season
Sample Type	Grab
Parameters	CBOD ₅ Total Suspended Solids

Groundwater Monitoring Table

Sampling Location(s)	MW1, MW2 and MW3 as shown on the Site Plan (Drawing# C-102) dated December 18, 2020 included in Schedule A.
Frequency	Three (3) times during the operating season
Sample Type	Grab
Parameters	Nitrate Nitrogen Nitrite Nitrogen Sodium Chloride <i>E. coli</i> Total Coliform

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

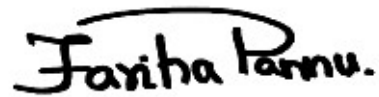
*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

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 <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 29th day of December, 2020



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

SW/

c: District Manager, MECP Kingston District Office
Martin Burger, P.Eng., Groundwork Engineering Limited