

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 5894-CSSHAZ Issue Date: April 9, 2024

Comfort Estates Ltd. P.O. Box 51106 Eglinton Square RPO Scarborough, Ontario M1L 4T2

Site Location: Maple Grove Trailer / RV Park 6947 Highway No.7 Hwy, Pt Lot 10, Concession 3 Lot 10, Concession 3 DIVISION B Township of Guelph/Eramosa Township, County of Wellington N0B 1M0

You have applied under section 20.2 of Part II.1 of the <u>Environmental Protection Act</u>, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

amendment to the year round, on-site sewage Works for collection, tertiary treatment and subsurface disposal designed for Maximum Daily Flow of 50,000 litres per day (L/day) and balanced flow of 36,000 L/day, replacing all existing on-site sewage systems (all Existing Works are to be Decommissioned), servicing the existing year round Maple Grove Mobile Home Park with the following serviced sites, located on the south side of Highway 7, west of Guelph comprising;

- Existing thirty-nine (39) trailer / mobile home sites
- Existing four (4) existing cabins 'A' to 'D'
- Existing 3-bedroom residence

PROPOSED WORKS

Proposed Flow Equalization Tank (EQT) (serving both Train 1 and Train 2)

one (1) proposed underground concrete Flow Equalization Tank located East of Trailer 16, with a working volume of 29,200 L, receiving receiving gravity flow from sanitary sewers, pumped sewage flow from Sewage Pumping Station SPS-1, equipped with air vents, access openings, a high level visual/audible alarm system, and a duplex pumping system, each pump rated at approximately 180 litres per minute (L/min) at 3m TDH, pumping the

equalized/balanced maximum daily design flow of up to 18,000 L/day to the Treatment Train #1 and 18,000 L/day to the Treatment Train #2; wastewater will be pumped from the Flow Equalization Tank at a time dose rate up to 0.75 m3/h into the primary treatment stage of the Treatment Train 1 and Treatment Train 2;

PRIMARY TREATMENT SYSTEM - TRAIN 1

Proposed Moving Bed Bioreactor (MBBR) Treatment System (Train 1 Design Capacity = 18,000 L/day)

One Proposed Moving Bed Bioreactor Treatment System designed to provide produce Level IV (tertiary) quality effluent to meet the requirement of Table 8.6.2.2 of the Ontario Building Code, as well as treating Total Inorganic Nitrogen less than 29.8 mg/L (Proposed Treatment Train No. 1/Sewage System No. 1), capable of treating 18,000 L/day representing 50% of the Total Balanced flow to be disposed off to the Type A subsurface dispersal bed No.1;

<u>Proposed Treatment Train No. 1/Sewage System No. 1 With Total Inorganic Nitrogen</u> reduction (Q=18,000 L/day)

Sludge Storage/Primary Clarifier Tank (SS/PC)

One (1), two chambered sludge storage and primary clarification tank, located south of the Equalization Tank, having an effective volume of 22,700 L (sludge storage chamber: 15,000 L; primary clarification chamber: 6,900 L), the tanks are designed with a hydraulic retention time of 6.6 hours and 3.1 hours respectively, receiving flow from the equalization tank as well as recirculated secondary and tertiary flow; anoxic conditions to be created in sludge storage chamber for pre-anoxic denitrification of nitrified effluent (recirculated from the aerobic bioreactors) with Carbon Addition via primary sludge and injection through a metering pump, discharging into Secondary Treatment Tank BR1;

SECONDARY TREATMENT SYSTEM - TRAIN 1

Moving Bed Bioreactor (MBBR) Bioreactor 1 and Bioreactor 2 (BR1 and BR2) and Secondary Clarifier SCL

two (2) proposed MBBR Bioreactors BR1 and BR2, connected in series, located downstream of Tank SS/PC, towards the east side, having a working volume of 6,700 Litres and 6,200 L respectively, designed with a minimum hydraulic retention time of 3 hours, containing specially designed plastic media with a surface area of 500 m²/m³, with oxygen supplied by two (2)

side-channel air compressors, supplying oxygen at a minimum rate of 53 Nm³/hour at 153 mbar, and distributing through fine bubble diffusers, complete with a DO sensor integrated into the PLC control panel, BR2 is complete with a recirculation pump, returning a portion of the process mixed liquor to Tank SS, and media retaining screens, and discharging by gravity in to the Secondary Clarifier SC;

Secondary Clarifier Tank SC

one (1) concrete Secondary Clarifier, receiving effluent from BR2 by gravity, having an approximate working volume of 4,200 Litres and liquid surface area of 5.9 m^2 complete with two sludge return pumps each rated at 125 Litres per minute at a TDH of 2.3 m, receiving gravity flow from BR2, discharging supernatant to Effluent Pump Tank EPT 1, complete with two (2) sloped wall hoppers and settled sludge removed from the bottom of the hopper is returned to the Sludge Storage tank SS;

Effluent Pump Tank EPT 1

One (1) 6,800 Litres Effluent Pump Tank complete with two (2) access risers and lids, an audible/visual high level alarm with two (2) effluent pumps, each rated at 176.8 L/min at 12.8m TDH to pump on a demand dose basis, each pumping through an ultrasonic effluent flow meter located in the control shed to dose 1,125 L/dose every 1.5 hours (16 doses/day) for a total of 18,000 L/day per design, to Type A Dispersal Bed No. 1;

FINAL EFFLUENT DISPOSAL SYSTEM - TRAIN 1

Type A Dispersal Bed No. 1/Subsurface Sewage Disposal System (Q=18,000 L/day)

• One (1) raised Type A Dispersal Bed, located at the north end of the property, constructed in an area having a footprint of $35m \times 39m$ for the bed and the mantle, receiving treated effluent from Effluent Tank EPT 1 Pumps, the bed having a stone layer of $31m \times 12.2m$, consisting of equally sized effluent distribution piping systems, having twenty four (24) 14.0 m long distribution pipes installed 1.0 m apart centre to centre within an approximately $378.2m^2$ 300 mm thick stone layer constructed over an imported sand fill layer with a percolation rate of 6-10 min/cm with a contact area of approximately $1,365 \text{ m}^2$, and a thickness ranging from 400 mm to 1,170 mm lying over a native soil with percolation rate of 30 min/cm, complete with a sand mantle extending a minimum of 24.3m beyond the stone layer in the direction in which the effluent will move laterally in the soil away from the Type A Dispersal Bed;

PRIMARY TREATMENT SYSTEM - TRAIN 2

Proposed Moving Bed Bioreactor (MBBR) Treatment System with phosphorus removal (Design Capacity = 36,000 L/day)

One Proposed Moving Bed Bioreactor Treatment System designed to provide produce Level IV (tertiary) quality effluent to meet the requirement of Table 8.6.2.2 of the Ontario Building Code, Total Phosphorus less than 1.5 mg/L, capable of treating 18,000 L/day representing 50% of the Total Balanced flow to be disposed off to the subsurface dispersal beds;

<u>Proposed Treatment Train No. 2/Sewage System No. 2 with TP reduction (Q=18,000 L/day)</u> Sludge Storage/Primary Clarifier Tank (SS/PC)

One (1), two chambered sludge storage and primary clarification tank, located south of the Equalization Tank, having an effective volume of 17,500 L (sludge storage chamber: 12,000 L; primary clarification chamber: 5,500 L), the tanks are designed with a hydraulic retention time of 10.6 hours and 4.5 hours respectively, receiving flow from the equalization tank as well as recirculated secondary and tertiary flow (recirculated from the aerobic bioreactors), discharging into Secondary Treatment Tank BR1;

SECONDARY TREATMENT SYSTEM - TRAIN 2

Moving Bed Bioreactor (MBBR) Bioreactor 1 and Bioreactor 2 (BR1 and BR2) and Secondary Clarifier SCL

two (2) proposed MBBR Bioreactors BR1 and BR2, connected in series, located downstream of Tank SS/PC, towards the east side, having a working volume of 6,700 Litres and 6,200 L respectively, designed with a minimum hydraulic retention time of 3 hours, containing specially designed plastic media with a surface area of $500 \text{ m}^2/\text{m}^3$, with oxygen supplied by two (2) side-channel air compressors, supplying oxygen at a minimum rate of 53 Nm^3 /hour at 153 mbar, and distributing through fine bubble diffusers, complete with a DO sensor integrated into the PLC control panel, BR2 is complete with a recirculation pump, and discharging by gravity in to the Secondary Clarifier SC;

Phosphorus Reduction/Floc Reactor Tank

one (1) phosphorus reduction/Floc Reactor tank, having an overall volume of 2,300 L complete with coagulant dosing system with coagulant dosing pump/mixing pump/eductor, designed with a retention time of 30 minutes, and discharging via gravity to a Secondary Clarifier SC;

Secondary Clarifier Tank SC

one (1) concrete Secondary Clarifier, receiving effluent from BR2 by gravity, having an approximate working volume of 4,200 Litres and liquid surface area of 5.9 m^2 , and two sludge return pumps each rated at 125 Litres per minute at a TDH of 2.3 m, receiving gravity flow from Floc Reactor Tank, discharging supernatant to Effluent Pump Tank EPT2, complete with two (2) sloped wall hoppers and settled sludge removed from the bottom of the hopper is returned to the Sludge Storage tank SS;

Effluent Pump Tank EPT 2

One (1) 6,800 Litres Effluent Pump Tank complete with two (2) access risers and lids, an audible/visual high level alarm with two (2) effluent each pump rated at 176.8 L/min under a TDH of 12.8m, to pump through a valve distribution assembly, to allow 50% of dose volume to Pod 'A' and 50% to Pod 'B' of the Type A Dispersal Bed 2, via two 50mm PVC effluent forcemains on a demand dose basis, each pumping through an magnetic effluent flow meter located in the control shed to dose 1,125 L/dose every 1.5 hours (16 doses/day) for a total of 18,000 L/day as per the design, to Type A Dispersal Bed No. 2;

Control Building, Controls and Infrastructure

One Control Building located at the south east corner of the property, housing control equipment and infrastructure for both Train 1 and Train 2, having two (2) control panels to control the treatment plant, flow equalization / balancing, and effluent pump tanks, and containing blowers, three flow meters, chemical dosing system, and control panels;

FINAL EFFLUENT DISPOSAL SYSTEM - TRAIN 2

Type A Dispersal Bed No. 2/Subsurface Sewage Disposal System No. 2 (Q=18,000 L/day)

One (1) raised Type A Dispersal Bed, located at the South end of the property, constructed in an area having a footprint of 42m x 54m for the bed and the mantle, receiving treated effluent from Effluent

Tank EPT2 Pumps, the bed having an overall footprint of $31 \text{ m} \times 12 \text{ m}$ and comprising two Pods, Pod A and Pod B, each having a central flow divider, each Pod having a foot print area of $36.4 \text{ m} \times 5.2 \text{ m}$, consisting of equally sized effluent distribution piping systems, each Pod having twenty (20) 16.7 m long 75mm diameter distribution pipes installed 1.0 m apart centre to centre within Two (2) Stone Pods totalling approximately $378.6 \text{ m}^2 300 \text{ mm}$ thick stone layer constructed over an imported sand fill layer 2,268 m² area (42m x 54m) with a percolation rate of 6-10 min/cm with a contact area of approximately 2,268 m², and a thickness ranging from 800 mm to 2,700 mm lying over a native soil with percolation rate of 50 min/cm, complete with a sand mantle extending a minimum of 20.3 m beyond the stone layer of each of the Pod And B, in the direction which the effluent will move laterally in the soil away from the Type A Dispersal Bed No. 2;

DECOMMISSIONING OF ALL EXISTING WORKS

including all other mechanical system, electrical system, instrumentation and control system, standby power system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only;

all in accordance with the Schedule A.

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

- 1. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
- 2. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;
- 3. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
- 4. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
- 5. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
- 6. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
- 7. "Final Effluent" means effluent that is discharged to the environment through the approved effluent disposal facilities, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point(s);
- 8. "Grab Sample" means an individual sample of at least 1000 millilitres collected in an appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;
- 9. "Influent" means flows to the Sewage Treatment Plant from the collection system;
- 10. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act,* R.S.O. 1990, c. P.28;
- 11. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
- 12. "OBC" means the Ontario Building Code, Ontario Regulation 332/12 (Building Code) as amended to January 1, 2015, made under the *Building Code Act*, 1992, S.O. 1992, c. 23;
- 13. "Operating Agency" means the Owner, person or the entity that is authorized by the Owner for the management, operation, maintenance, or alteration of the Works in accordance with this Approval;
- 14. "Owner" means Comfort Estates Ltd., including any successors and assignees;
- 15. "OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40;

- 16. "Peak Daily Flow Rate" (also referred to as Maximum Daily Flow or Maximum Day Flow) means the largest volume of flow to be received during a one-day period for which the sewage treatment process unit or equipment is designed to handle;
- 17. "Primary Effluent" means the effluent from the Primary Treatment System;
- 18. "Primary Treatment System" means all facilities in the Sewage Treatment Plant associated with the primary sedimentation unit process and includes chemically enhanced primary treatment;
- 19. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
- 20. "Responsibility Agreement" means a legal agreement between a municipality and developer which stipulate the conditions under which communal services will be constructed, operated and maintained, as well as, the action to be undertaken by the municipality in the event of default;
- 21. "Secondary Treatment System" means all facilities in the Sewage Treatment Plant associated with biological treatment, secondary sedimentation and phosphorus removal unit processes;
- 22. "Sewage Treatment Plant" means all the facilities related to sewage treatment within the sewage treatment plant site excluding the Final Effluent disposal facilities;
- 23. "Single Sample Result" means the test result of a parameter in the effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, as required;
- 24. "Works" means the approved sewage works, and includes Proposed Works.

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

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

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

- 3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.
- 4. 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 Works;

2. CHANGE OF OWNER AND OPERATING AGENCY

- 1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
 - a. change of address of Owner;
 - b. change of Owner, including address of new owner;
 - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act, R.S.O. 1990, c. B.17* shall be included in the notification;
 - d. change of name of the corporation and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C.39* shall be included in the notification.
- The Owner shall notify the District Manager, in writing, of any of the following changes within thirty (30) days of the change occurring:
 - a. change of address of the Operating Agency;
 - b. change of the Operating Agency, including address of the new Operating Agency.
- 3. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.
- 4. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

3. CONSTRUCTION OF PROPOSED WORKS

- 1. All Proposed Works in this Approval shall be constructed and installed and must commence operation within **two (2) years** of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Works not in operation. In the event that the construction, installation and/or operation of any portion of the Proposed Works is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change(s).
- 2. Within thirty (30) days of the completion of construction of the Proposed Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the Proposed Works is constructed in accordance with this Approval.
- **3.** One (1) week prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
- 4. Within **one (1) year** of completion of construction of the Proposed Works, a set of record drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.
- 5. The Owner shall ensure that the treatment technologies are installed in accordance with the manufacturer's installation manual.
- 6. The Owner shall ensure that any imported soil that is required for construction of any subsurface disposal bed as per this Approval is tested and verified by the Licensed Engineering Practitioner for the percolation time (T) prior to delivering to the site location and the written records are kept at the site.
- 7. The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied.

4. DESIGN OBJECTIVES

- 1. The Owner shall design and undertake everything practicable to operate the Sewage Treatment Plant in accordance with the following objectives:
 - a. Final Effluent parameters design objectives listed in the table(s) included in Schedule B.

- b. Annual Average Daily Influent Flow and Equalized Daily Flow is within the Design Capacity of the Sewage Treatment Plant.
- 3. The Owner shall ensure that the flow of treated effluent discharged into each of the subsurface disposal bed does not exceed 18,000 litres per day.

5. EFFLUENT LIMITS

- 1. The Owner shall design, construct, operate and maintain the Works such that the concentrations of the materials named as effluent parameters in the Effluent Limits Table in Schedule B are not exceeded in the effluent from the Works:
- 2. For the purposes of determining compliance with and enforcing subsection (1):
 - a. Single Sample concentration of CBOD5 TSS, TP and TN named in Column 1 of Effluent Limits Table listed in Schedule C shall not exceed the corresponding maximum concentration set out in Column 2 of Effluent Limits Table listed in Schedule C.

6. OPERATION AND MAINTENANCE

- 1. The Owner shall ensure that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and relevant regulations made under the OWRA, process controls and alarms and the use of process chemicals and other substances used in the Works.
- 2. The Owner shall prepare/update the operations manual for the Works within **six (6) months** of completion of construction of the Proposed Works, that includes, but not necessarily limited to, the following information:
 - a. operating procedures for the Works under Normal Operating Conditions;
 - b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
 - c. repair and maintenance programs, including the frequency of repair and maintenance for 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 Spills Action Centre (SAC) and District Manager;
- f. procedures for receiving, responding and recording public complaints, including recording any followup actions taken.
- 3. The Owner shall maintain an up to date operations manual and make the manual readily accessible for reference at the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.
- 4. The Owner shall ensure that the Operating Agency fulfills the requirements under O. Reg. 129/04, as amended for the Works, including the classification of facilities, licensing of operators and operating standards.
- 5. The Owner shall maintain a logbook to record the results of all inspections, repair and maintenance undertaken, calibrations, monitoring and spill response or contingency measures undertaken and shall make the logbook available for inspection by Ministry staff. The logbook shall include the following:
 - a. the name of the operator making the entry; and
 - b. the date and results of each inspection, repair, maintenance, calibration, monitoring, spill response and contingency measure.
- 6. 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. The maintenance agreement must be retained at the site and kept current for the operational life of the Works.
- 7. The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal bed(s), and that adequate steps are taken to ensure that the area of the underground works is protected from vehicle traffic.
- 8. The Owner shall visually inspect the general area where Works are located for break-out once every month.
- 9. In the event a break-out is observed from a subsurface disposal bed, the Owner shall do the following:
 - a. sewage discharge to that subsurface disposal bed shall be discontinued;

- b. the incident shall be **immediately** reported verbally to the Spills Action Centre (SAC) at (416) 325-3000 or 1-800-268-6060;
- c. submit a written report to the District Manager within **one (1) week** of the break-out;
- d. access to the break-out area shall be restricted until remedial actions are complete;
- e. during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to the environment; and
- f. sewage generated at the site shall be safely collected and disposed of through a licensed waste hauler to an approved sewage disposal site.
- 10. The owner shall collect samples at the frequency specified in the Groundwater Monitoring Table and Surface Water Monitoring Table included in the **Schedule D**, by means of the specified sample type, analyze for each parameter listed and record all results;
- 11. The Owner shall have a valid written agreement with a hauler who is in possession of a Waste Management Systems Approval, for the treatment and disposal of the sludge generated from the Works, at all times during operation of the Works.
- 12. The Owner shall ensure that flow of effluent discharged into the Type A disposal beds does not exceed the its design Maximum Daily Flow Rate.
- 13. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the operation and maintenance activities required by this Approval.

7. MONITORING AND RECORDING

- 1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in **Schedule D** and record all results, as follows:
 - a. all samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.
 - b. 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. Annually means once every year;
- 2. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:
 - a. the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended;
 - b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
 - c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
 - d. for any parameters not mentioned in the documents referenced in Paragraphs 2.a, 2.b and 2.c, the written approval of the District Manager shall be obtained prior to sampling.
- 3. The Owner shall monitor and record the daily flow rate using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:
 - a. Final Effluent discharged from each of the **Effluent Pump Tank 1 and the Effluent Pump Tank 2** to each of the disposal beds by continuous flow measuring devices and instrumentations
- 4. Prior to the operation of the Proposed Works, the Owner shall establish, update and implement the following Groundwater Monitoring Program;
 - a. Replace the above-grade well casing of MW1, due to corrosion
 - b. Install an above-grade (stick-up) casing at MW7
 - c. Install a shallow monitoring well at an accessible location between Type "A" Dispersal Bed No. 2 and tributary of Ellis Creek
- 5. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

8. REPORTING

- 1. The Owner shall report to the District Manager orally **as soon as possible** any non-compliance with the Effluent Limits, and in writing within **seven (7) days** of non-compliance.
- 2. As a trigger mechanism, the Owner shall report to the District Manager orally **as soon as possible** any exceedence with the Effluent Objectives, and follow up in writing within **seven (7) days** of any such exceedance.
- 3. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.
- 4. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
- 5. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager in an electronic format by **March 31** of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:
 - a. a summary and interpretation of all Influent monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;
 - b. a summary and interpretation of all flow data and results achieved in not exceeding the Maximum Daily Flow discharged into the Subsurface Disposal Beds;
 - c. a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;
 - d. a summary and interpretation of groundwater monitoring data including shallow groundwater flow direction, water level and interpretation of analytical results and comparison with the compliance limits;
 - e. a summary and interpretation of surface water monitoring data and interpretation of analytical results and comparison with the Provincial Water Quality Objectives and/or Canadian Water Quality Guidelines;
 - f. a summary of all operating issues encountered and corrective actions taken;
 - g. a summary of all normal and emergency repairs and maintenance activities carried out on any major

structure, equipment, apparatus or mechanism forming part of the Works;

- h. a summary of any effluent quality assurance or control measures undertaken;
- i. a summary of the calibration and maintenance carried out on all Influent and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
- j. a summary of description of efforts made and results achieved in meeting the Design Objectives Condition;
- k. a tabulation of the volume of sludge generated, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;
- 1. a summary of any complaints received and any steps taken to address the complaints;
- m. a summary of all bypasses, overflows and spills within the meaning of Part X of EPA and abnormal discharge events;
- n. any changes or updates to the schedule for the completion of construction and commissioning operation of major process(es) / equipment groups in the Proposed Works;
- o. any other information the District Manager requires from time to time.

9. FINANCIAL ASSURANCE

- 1. Within **twenty (20) days** of issuance of this Approval, the Owner shall submit to the Director, Financial Assurance, as defined in Section 131 of the Act, for the amount of \$170,477. This Financial Assurance shall be in a form acceptable to the Director and shall provide sufficient funds to pay for analysis, monitoring, clean-up and decommissioning of the Works.
- 2. Commencing on **March 31, 2026,** and at intervals of five (5) years thereafter, the Owner shall submit to the Director, a re-evaluation of the amount of Financial Assurance to implement the actions required under Subsection (1). The re-evaluation shall include an assessment based on any new information relating to the environmental conditions of the Works and the costs of additional monitoring, clean-up and/or implementation of contingency plans required by the Director upon review of the annual reports.
- 3. The Financial Assurance must be submitted to the Director within twenty (20) days of written acceptance of the re-evaluation by the Director.

- 4. The amount of Financial Assurance is subject to review at any time by the Director and may be amended at his/her discretion.
- 5. If any Financial Assurance is scheduled to expire or notice is received, indicating Financial Assurance will not be renewed, and satisfactory methods have not been made to replace the Financial assurance at least **sixty (60) days** before the Financial Assurance terminates, the Financial Assurance shall forthwith be replaced by cash.

10. RESPONSIBILITY AGREEMENT

- 1. The Owner shall take all reasonable steps to enter into a duly signed Responsibility Agreement with Township of Guelph Eramosa prior to the construction of the Works approved herein in accordance with the Ministry Procedure D-5-2 entitled "Application of Municipal Responsibility for Communal Water and Sewage Services".
- 2. The Owner shall provide written confirmation that the Responsibility Agreement was entered into, including the effective date of the Responsibility Agreement, to the Director and the District Manager.

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

- 1. Condition 1 regarding general provisions is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.
- 2. Condition 2 regarding change of Owner and Operating Agency is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Agency of the Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
- 3. Condition 3 regarding construction of Proposed Works/record drawings is included to ensure that the Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction to ensure the ongoing protection of the environment, and that prior to the commencement of construction of the portion of the Works that are approved in principle only, the Director will have the opportunity to review detailed design drawings, specifications and an engineer's report containing detailed design calculations for that portion of the Works, to determine capability to comply with the Ministry's requirements stipulated in the terms and conditions of the Approval, and also ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
- 4. Condition 4 regarding design objectives is imposed to establish non-enforceable design objectives to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
- 5. Condition 5 regarding compliance limits is imposed to ensure that the Final Effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements.
- 6. Condition 6 regarding operation and maintenance is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.
- 7. Condition 7 regarding monitoring, recording and trigger mechanism are included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and compliance limits.

- 8. Condition 8 regarding reporting is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for this Approval.
- 9. Condition 9 is included to ensure that the Owner provides financial assurance on a timely basis, in an amount adequate to cover the capital and operating costs of the environmental measures for which it is provided and is in a form readily used by Ministry personnel.
- 10. Condition 10 is included to ensure that there is a Responsibility Agreement in place between the Owner and the Municipality prior to construction of the Works so that, in the event that the Owner is unable to continue to provide sewage service, the Municipality may be able to assume ownership and operation of the Works.

Schedule A

1. Application for Environmental Compliance Approval dated January 4, 2023 and received on March 14, 2023.

Schedule B

Final Effluent Design Objectives

Concentration Objectives upon completion of construction of all Proposed Works

Final Effluent sampling point: Final Effluent Pump Tank No. 1

Final Effluent Parameter	Averaging Calculator	Objective (milligrams per litre unless otherwise indicated)
CBOD5	Single Sample Result	20 mg/L
Total Suspended Solids (TSS)	Single Sample Result	20 mg/L
Total Inorganic Nitrogen (TIN)	Single Sample Result	29.8 mg/L

Final Effluent sampling point: Final Effluent Pump Tank No. 2

Final Effluent Parameter	Averaging Calculator	Objective (milligrams per litre unless otherwise indicated)
CBOD5	Single Sample Result	20 mg/L
Total Suspended Solids (TSS)	Single Sample Result	20 mg/L
Total Phosphorus (TP)	Single Sample Result	1.5 mg/L

Schedule C

Final Effluent Compliance Limits

Concentration Limits upon completion of construction of all Proposed Works

Final Effluent sampling point: Final Effluent Pump Tank No. 1

Final Effluent	Averaging Calculator	Limit
Parameter		(maximum unless otherwise indicated)
CBOD5	Single Sample Result	20 mg/L
Total Suspended Solids (TSS)	Single Sample Result	20 mg/L
Total Inorganic Nitrogen (TIN)	Single Sample Result	29.8 mg/L

Final Effluent sampling point: Final Effluent Pump Tank No. 2

Final Effluent Parameter	Averaging Calculator	Limit (maximum unless otherwise indicated)
CBOD5	Single Sample Result	20 mg/L
Total Suspended Solids (TSS)	Single Sample Result	20 mg/L
Total Phosphorus (TP)	Single Sample Result	1.5 mg/L

Schedule D

Monitoring Program

Influent Monitoring Table

Influent sampling point: Flow Equalization Tank

Sample Type	Grab
Minimum Frequency	Monthly*
Parameter Type	TBOD, Total Suspended Solids, Total Phosphorus, Total Ammonia
	Nitrogen, Total Kjeldhal Nitrogen, pH, Alkalinity, Nitrate as Nitrogen,
	Nitrite as Total Nitrogen, Nitrate as Inorganic Nitrogen

*period during the sampling events to be spread evenly

Final Effluent Monitoring Table

Final Effluent sampling points: Effluent Pump Tank 1 and 2

Sample Type	Grab
Minimum Frequency	Monthly*
Parameter Type	CBOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia
	Nitrogen, Total Kjeldhal Nitrogen, Nitrate as Nitrogen, Nitrite as Nitrogen,
	Nitrite as Inorganic Nitrogen, pH

*period during the sampling events to be spread evenly

Groundwater Monitoring Table

Groundwater monitoring/sampling locations: MW1, MW2, MW7, and a new monitoring well** downgradient of Type A Dispersal Bed 2

Sample Type	Grab
Minimum Frequency	Quarterly every year (four times per year during the operating season)*
Parameter Type	Dissolved Phosphorus, Total Ammonia Nitrogen, Total Kjeldhal Nitrogen, pH, Temperature, Conductivity, Nitrate as Nitrogen, Nitrite as Nitrogen, Calcium, Magnesium, Sodium, Potassium, Chloride, Sulphate, Carbonate/Bicarbonate Alkalinity, Total Dissolved Solids Groundwater Elevation

*period during the sampling events to be spread evenly

** a shallow monitoring well at an accessible location between Type "A" Dispersal Bed # 2 and the tributary of Ellis Creek, downgradient (south) of Type "A" Dispersal Bed # 2 and the tributary

(Provide a map showing the location of the proposed monitoring well with the rationale for the monitoring well's proposed depth)

Surface Water Monitoring Table

Surface Water monitoring locations

1. Upstream of the North East Property Boundary, and,

2. Downstream, at the North West Property Boundary

Sample Type	Grab
Minimum Frequency	Annually* within low flow period from June to September
Parameter Type	CBOD5, Total Ammonia Nitrogen, Nitrate as Nitrogen, Nitrite as Nitrogen, Dissolved Phosphorus, Field pH, and Field Temperature

*once every year

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 7069-9Y6NKK issued on August 12, 2015.

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

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

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

The Notice should also include:

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

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

This Notice must be served upon:

Registrar* Ontario Land Tribunal 655 Bay Street, Suite 1500 Toronto, Ontario M5G 1E5 OLT.Registrar@ontario.ca The Minister of the Environment, Conservation and Parks 777 Bay Street, 5th.Floor Toronto, Ontario M7A 2J3

and

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

* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca

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 9th day of April, 2024

Fariha Parnu.

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

KH/

c: District Manager, MECP Guelph District. Eric Gunnell, P. Eng., Gunnell Engineering Ltd.