

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 4366-D2PQML  
 Issue Date: June 26, 2024

Bellmere Holdings Inc.  
 612-A Welland Ave  
 St. Catharines, Ontario  
 L2M 5V6

Site Location: Bellmere Winds Resort (formerly Godfrey's Cottages)  
 1235 Villiers Line  
 Township of Otonabee-South Monaghan, County of Peterborough  
 K0L 2G0

*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:*

alterations and extensions to the existing non-municipal subsurface disposal works at Bellmere Winds Resort (formerly Godfrey's Cottages), seasonally occupied between May 1 and October 31, for the treatment and disposal of domestic sewage from a total of 401 Park Model Units (PMUs), a Laundry Facility and an expanded Golf Clubhouse, to amend the Existing Sewage Works No. 3 to a Proposed WBS Treatment System and Type A Dispersal Bed, without changing the existing Maximum Daily Flow rate of 208,425 L/day, consisting of the following;

<b>Maximum Daily Flow Rate</b>	
Prior to Completion of all Proposed Works	208,425 L/d
Upon Completion of all Proposed Works	208,425 L/d

**PROPOSED WORKS**

Sewage System No. 3 (Maximum Daily Flow 30,500 L/d serving the Clubhouse)  
 Amendment in the previous approved sewage works No. 3 serving the new golf clubhouse (SS No. 3) from a conventional system to a Waterloo Biofilter (WBS) Treatment System and Type A Dispersal Bed, located at comprising;

## **Pretreatment**

### Oil/Grease Interceptor

one (1) 6,000 three compartment Oil/Grease Interceptor, receiving wastewater from the Clubhouse Kitchen and discharging the effluent by gravity to an Existing 22,700 L Septic Tank;

## **WBS Waterloo Biofilter System**

### Septic Tank

one (1) Existing 22,700 L Septic Tank equipped with an effluent filter rated for 37,850 L/day discharging effluent by gravity to an Anaerobic Digester Tank No.1;

### Anaerobic Digester Tanks

two (2) 22,500 L Anaerobic Digester Tanks No. 1 and No.2 connected in series, each with an InnerTube on the inlet, the outlet of Tank No. 1 is equipped with a baffle, and the outlet of Tank No. 2 is equipped with two (2) effluent filters each rated for 37,850 L/day, discharging effluent by gravity to an Aeration Tank;

### Aeration Tank

one (1) 27,500 L Aeration Tank equipped with a baffle on the inlet and outlet, and equipped with three (3) aerators, discharging effluent by gravity to a Clarifier Tank;

### Clarifier Tank

one (1) 18,000 L double compartment Clarifier Tank; complete with a baffle on the inlet, equipped with an effluent pump to recirculate effluent to the inlet of the Existing Septic Tank, the outlet equipped with two (2) effluent filters each rated for 37,850 L/day, discharging effluent by gravity to a Pump Tank;

### Pump Tank

one (1) 27,500 L Pump Tank; equipped with two (2) effluent pumps and a Waterloo Biofilter Basket with 8.9 cubic meters of Biofilter medium, discharging to Basket Biofilter Tanks;

### Waterloo Basket Biofilter Tanks

three (3) 27,500 L Basket Biofilter Tanks, operating in parallel and inter-connected to each other, each tank equipped with two (2) baskets filled with 10.5 cubic metres of Biofilter medium, with both baskets in Basket Biofilter Tanks No. 2 and No. 3 and one (1) basket in Basket Biofilter Tank No. 1 being dosed from the Pump Tank; Basket Biofilter Tank No. 1 equipped with an effluent pump to recirculate effluent to the inlet of Anaerobic Digester Tank No.1, Basket Biofilter Tank No. 1 equipped with an effluent pump to dose the second basket in Basket Biofilter Tank No.1, and two (2) effluent pumps operating on alternating demand, capable of dosing 1,939 L (970 L per pod) per 15 minute minimum cycle time discharging via a 50mm dia forcemain to the subsurface leaching bed;

## **Final Effluent Disposal**

### Subsurface Disposal Bed

One (1) partially raised Type A dispersal bed to be constructed in two (2) pods, each pod having four (4) cells, constructed in an imported sand fill with a percolation time of 6 to 10 min/cm and less than 5% fines passing #200 sieve, each area bed consisting of 570m (285m per pod), each pod having 5 runs of 75 mm dia. perforated distribution pipe, each 14.3 m long (26 m total), set 1.0 m o/c, 0.6 m in from sides and ends, with the pipe laid within a 300 mm deep layer of clean stone, each pod having a stone area of 20 m x 15.3 m (305 m<sup>2</sup>) each, overlying a sand contact area of 33.5 m x 43.57 m (1460 m<sup>2</sup>) including a 15 m sand mantle in the easterly direction, with the bed constructed with a minimum vertical separation of 1.0 m between the base of stone and high water table;

## **EXISTING WORKS**

### Sewage System No. 1 (Rated Capacity 158,375 L/d serving 355 PMUs and one Laundry Facility)

#### Balancing Tank

- redirection of existing forcemain from the Phase 1 private sewer system to the balancing tanks;
- connection of the proposed forcemain from Phase 2 private sewer system to the balancing tanks;
- two (2) 68,000 L single compartment balancing tanks in series;
- two (2) submersible pumps (one standby in alternating duplex operation) in the second balancing tank, with timer controlled pumping at a rate not exceeding 6,645 L/h via a 100 mm diameter forcemain to the existing influent distribution tank;

#### Influent Distribution Tank

one (1) 4,500 L influent distribution tank, receiving sewage via the forcemain from the Phase 1 private sewer system and distributing the flows to two parallel series of septic tanks;

#### Septic Tanks

- two (2) 80,000 L septic tanks in series each with an effluent filter, discharging to one (1) 50,000 L balancing tank, equipped with four (4) pumps in two pairs, operating on alternating duplex timer, each pair with a forcemain discharging to a nitrifying unit;
- three (3) 60,000 L septic tanks in series each with an effluent filter, discharging to one (1) 50,000 L balancing tank, equipped with four (4) pumps in two pairs, operating on alternating duplex timer, each pair with a forcemain discharging to a nitrifying unit;

#### Waterloo Biofilter Nitrifying Treatment System

- four (4) proprietary ventilated trickling filter type nitrifying units, comprised of proprietary bulk foam medium contained in individual SC-40 shipping containers, each containing 58.5 m<sup>3</sup> of medium, complete with an air distribution system, a control system and chemical dosing equipment for phosphorus removal and alkalinity adjustment;
- each pair of nitrifying units draining to a splitter box with variable ratios between discharging to a WaterNOx dosing tank and recirculation to the first of the septic tank in the corresponding series;

#### WaterNOx Denitrifying Treatment System

- two (2) 40,000 L WaterNOx dosing tanks, each with two (2) pumps operating on alternating duplex timer, discharging to a denitrifying unit;
- two (2) proprietary ventilated trickling filter type denitrifying units, comprised of proprietary bulk foam medium contained in individual SC-40 shipping containers, each containing 67 m<sup>3</sup> of medium, complete with an air distribution system, a control system and chemical dosing equipment for carbon source for denitrification;
- each denitrifying unit draining to a splitter box with variable ratios between discharging to an effluent polishing unit dosing tank and recirculation to the first of the septic tank in the corresponding series;

#### Effluent Polishing System

- two (2) 25,000 L effluent polishing unit dosing tanks, each with two (2) pumps operating on alternating duplex timer, discharging to an effluent polishing unit;
- two (2) proprietary ventilated trickling filter type effluent polishing units, comprised of proprietary bulk foam medium contained in individual SC-40 shipping containers each with a 8.84 m long polishing section containing 47 m<sup>3</sup> of medium, complete with an air distribution system, a control system and chemical dosing equipment for carbon source for denitrification;
- each effluent polishing unit draining to two final effluent pump chambers for disposal to the area bed;

#### Final Effluent Pump Chambers

- four (4) 10,000 L final effluent pump chambers, each equipped with two (2) pumps alternately operating on demand on a 1,000 L/cycle, with a 50 mm forcemain to an area bed;

#### Subsurface Disposal Bed

- four (4) raised area beds, each with four (4) pods of 15 m x 13.4 m for an overall contact area of 3,200 m<sup>2</sup>;
- each pod with 14 runs @ 12.7 m length of 100 mm dia. perforated pipe placed 0.8 m c/c within a 300 mm deep layer of stone comprising of 19 mm clear aggregate washed free of fines, with the stone layer wrapped in a permeable geotextile fabric and placed on top a 300 mm layer of sand with an estimated percolation time of 6 min/cm, the beds to be finished with 600 mm soil backfill and hydroseeded topsoil providing a gradient from the bed centre to shed runoff;
- a 250 mm sand mantle extending a minimum 15 m beyond the outermost perforated pipes;

### Sewage System No. 2 (Rated Capacity 19,550 L/d serving 46 PMUs)

#### Balancing Tank

- one (1) 35,000 L single compartment balancing tank;
- two (2) submersible pumps (one standby in alternating duplex operation) in the balancing tank, with timer controlled pumping at a rate not exceeding 814 L/h via a 50 mm diameter forcemain to the septic tank;

### Septic Tank

one (1) 45,000 L two compartment septic tank, equipped with an effluent filter, discharging to the final effluent pump chamber;

### Final Effluent Pump Chamber

one (1) 9,000 L final effluent pump chamber, equipped with two (2) pumps, alternately operating on demand on a 660 L/cycle, discharging via a 50 mm forcemain to the pods of subsurface disposal bed via the flow distribution valve on rotation;

### Subsurface Disposal Bed

- one (1) raised OBC Class 4 subsurface disposal bed with four pods, each pod with 8 runs @ 25 m length of 75 mm dia. perforated pipe placed 1.6 m c/c installed in bed trenches with clear stone surround and overlying an imported sand backfill with an estimated percolation time of 6-10 min/cm, to be finished with 200 - 500 mm soil backfill, 100 mm depth topsoil and hydroseeded providing a gradient from the bed centre to shed runoff;
- a 250 mm sand mantle extending a minimum 15 m beyond the outermost perforated pipes;

## Sewage System No. 3 (Rated Capacity 30,500 L/d serving Clubhouse) (Now being replaced with the Proposed Works)

### Septic Tank

one (1) 60,000 L single compartment tank and one (1) 35,000 L single compartment tank working in tandem as a septic tank, equipped with an effluent filter in the second tank, discharging to the final effluent pump chamber;

### Final Effluent Pump Chamber

one (1) 22,000 L final effluent pump chamber, equipped with two (2) pumps, alternately operating on demand on a 3,640 L/cycle, discharging via a 50 mm forcemain to the subsurface disposal beds;

### Subsurface Disposal Bed

- two (2) raised OBC Class 4 subsurface disposal beds each with four pods, each pod with 7 runs @ 22 m length of 75 mm dia. perforated pipe placed 1.6 m c/c installed in bed trenches with clear stone surround and overlying an imported sand backfill with an estimated percolation time of 6-10 min/cm, to be finished with 200 - 500 mm soil backfill, 100 mm depth topsoil and hydroseeded providing a gradient from the bed centre to shed runoff;
- a 250 mm sand mantle extending a minimum 15 m beyond the outermost perforated pipes;

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

all in accordance with the Schedule A.

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

1. "Average Daily Flow" means the cumulative total sewage flow to the sewage works during a calendar year divided by the number of days during which sewage was flowing to the sewage works that year;
2. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
3. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;
4. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
5. "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;
6. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
7. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
8. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
9. "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 Works at the Final Effluent sampling point(s);
10. "Grab Sample" or "Grab" means an individual sample of at least 1000 millilitres collected in an appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;
11. "Influent" means flows to the Sewage Works from the collection system and but excluding process return flows;
12. "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;
13. "Maximum Daily Flow" (also referred to as Peak Daily Flow Rate or Maximum Day Flow) means the largest volume of flow to be received during a one-day period for which the sewage treatment process unit or equipment is designed to handle;
14. "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;

15. "Monthly Average Effluent Concentration" is the mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month;
16. "Monthly Average Daily Effluent Flow" means the cumulative total Final Effluent discharged during a calendar month divided by the number of days during which Final Effluent was discharged that month;
17. "Monthly Average Daily Effluent Loading" means the value obtained by multiplying the Monthly Average Effluent Concentration of a contaminant by the Monthly Average Daily Effluent Flow over the same calendar month;
18. "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;
19. "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;
20. "Owner" means Bellmere Holdings Inc. , including any successors and assignees;
21. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40;
22. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
23. "Works" means the approved sewage works, and includes Proposed Works, and Existing Works.

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

## **TERMS AND CONDITIONS**

### **1. GENERAL PROVISIONS**

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

### **2. CHANGE OF OWNER AND OPERATING AGENCY**

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
  - a. change of address of Owner;
  - b. change of Owner, including address of new owner;
  - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act, R.S.O. 1990, c. B.17* shall be included in the notification;
  - d. change of name of the corporation and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C.39* shall be included in the notification.
2. The Owner shall notify the District Manager, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
  - a. change of address of the Operating Agency;
  - b. change of the Operating Agency, including address of the new Operating Agency.



3. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.
4. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

### 3. CONSTRUCTION OF PROPOSED WORKS

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

#### 4. DESIGN OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Sewage Works in accordance with the following objectives:
  - a. Final Effluent parameters design objectives listed in the table(s) included in **Schedule B**.
  - b. The Owner shall use best efforts to maintain the pH of the effluent from the Works within the range of 6.5 - 8.5, inclusive, at all times;

#### 5. COMPLIANCE LIMITS

1. The Owner shall operate and maintain the Sewage Treatment Plant such that compliance limits for the Final Effluent parameters listed in the table(s) included in **Schedule C** are met.

#### 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 the Works;
  - d. procedures for the inspection and calibration of monitoring equipment;
  - e. operating procedures for the Works to handle situations outside Normal Operating Conditions and emergency situations such as a structural, mechanical or electrical failure, or an unforeseen flow condition.

- f. a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the Spills Action Centre (SAC) and District Manager;
  - g. procedures for receiving, responding and recording public complaints, including recording any 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 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.
  5. The Owner shall, upon completion of construction, prepare and make available for inspection by Ministry staff, a maintenance agreement with the manufacturer for the treatment process/technology. The maintenance agreement must be retained at the site and kept current for the operational life of the Works.
  6. 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.
  7. The Owner shall visually inspect the general area where Works are located for break-out **once every month** during the operating season.
  8. 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.
9. The Owner shall ensure that the septic tanks and sludge tanks as applicable be inspected **at least twice per year**, and the sewage sludge accumulated in the septic tanks and sludge tanks as applicable) be periodically withdrawn at the frequency required to maintain efficiency of the treatment system. The effluent filters in septic tanks shall be cleaned out at least once every six (6) months, when the tank is pumped out, or as determined by the Operating Agency, whichever comes first.
  10. The Owner shall ensure that the Operating Agency possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.
  11. The owner shall install one (1) groundwater monitoring well between the dispersal bed and the eastern property boundary and two (2) monitoring wells within the plume at or closer to the downgradient property boundary and collect samples at the frequency specified in **Schedule D**, by means of the specified sample type, analyze for each parameter listed and record all results;
  12. 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.
  13. The Owner shall ensure the grease interceptors be cleaned out **at least twice per year**, or more frequently as determined by the Works operator, for removal of fats, oil and grease from the kitchen wastewater.
  14. The Owner shall ensure that flow of effluent discharged into the subsurface disposal bed does not exceed the respective Maximum Daily Flow Rate for which each of the bed is designed flow.
  15. The Owner shall retain a Licensed Engineering Practitioner to conduct an inspection of the Works every five (5) years after issuance of this Approval, and prepare an Inspection Report that shall provide at a minimum, the following information:
    - a. Details about general operational condition of the Works.
    - b. Assessment of potential indications of failure of the Works, including but not limited to offensive odours, ponding on disposal beds or near underground tanks, sewage back-ups, etc.
  16. Upon request, the Owner shall make the Inspection Reports available to Ministry staff.

17. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the 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. Daily means once every day;
    - ii. Weekly means once every week;
    - iii. Monthly means once every month;
    - iv. 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 flow rate and daily quantity using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:
  - a. Influent flow to the Sewage Works by continuous flow measuring devices and instrumentations/pumping rates/details of other methods (e.g. top water elevation of lagoons), or in lieu of an actual installation of equipment, adopt the flow measurements of the Final Effluent for the purpose of estimating Influent flows if the Influent and Final Effluent streams are considered not significantly different in flow rates and quantities;
  - b. Final Effluent discharged from the Sewage Works by continuous flow measuring devices and instrumentations/pumping rates/details of other methods (e.g. level of lagoons), or in lieu of an actual installation of equipment, adopt the flow measurements of the Influent for the purpose of estimating Final Effluent flows if the Influent and Final Effluent streams are considered not significantly different in flow rates and quantities;
4. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

## 8. REPORTING

1. The Owner shall report to the District Manager orally **as soon as possible** any non-compliance with the compliance limits specified in Condition 5, and in writing within **seven (7) days** of non-compliance.
2. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within **fifteen (15) days** of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.
3. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
4. The Owner shall prepare 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 (or the balanced flow/subsurface bed design flow if there is flow balancing) discharged

into the subsurface disposal system;

- 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 of any deviation from the monitoring schedule and reasons for the current reporting year and a schedule for the next reporting year;
- e. a summary and interpretation of groundwater monitoring data including shallow groundwater flow direction, interpretation of analytical results and comparison with the compliance limit of 15 mg/l for Nitrate Nitrogen.
- 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 efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions when any of the design objectives is not achieved more than 50% of the time in a year or there is an increasing trend in deterioration of Final Effluent quality;
- 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;
- l. a summary of any complaints received and any steps taken to address the complaints;
- m. a summary of all other situations outside Normal Operating Conditions 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.

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

1. Condition 1 regarding general provisions is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.
2. Condition 2 regarding change of Owner and Operating Agency is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Agency of the Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
3. Condition 3 regarding construction of Proposed Works is included to ensure that the 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 and recording is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and compliance limits.
8. 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.



## **Schedule A**

1. Application for Environmental Compliance Approval dated January 3, 2023 and received on June 19, 2023.

## Schedule B

### Final Effluent Design Objectives

Concentration Objectives prior to and upon completion of construction of all Proposed Works

<b>Sewage System No. 1</b>	
<b>Effluent Parameter</b>	<b>Concentration Objective</b> (milligrams per litre unless otherwise indicated)
CBOD5	10.0
Total Suspended Solids	10.0
Total Phosphorus	1.5
Total Ammonia Nitrogen	3.0
Nitrate Nitrogen	10.0

<b>Sewage System No. 3</b>	
<b>Effluent Parameter</b>	<b>Concentration Objective</b> (milligrams per litre unless otherwise indicated)
CBOD5	10.0
Total Suspended Solids	10.0

## Schedule C

### Final Effluent Compliance Limits

**Concentration Limits prior to and upon completion of construction of all Proposed Works**

<b>Sewage System No. 1</b>		
<b>Effluent Parameter</b>	<b>Monthly Average Concentration</b> <small>(milligrams per litre unless otherwise indicated)</small>	<b>Monthly Average Waste Loading</b> <small>(kilograms per day unless otherwise indicated)</small>
CBOD5	15.0	3.15
Total Suspended Solids	15.0	3.15
Total Phosphorus	1.5	0.4
Total Ammonia Nitrogen	5.0	1.05
Nitrate Nitrogen	15.0	3.15
pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times		

<b>Sewage System No. 3</b>		
<b>Effluent Parameter</b>	<b>Monthly Average Concentration</b> <small>(milligrams per litre unless otherwise indicated)</small>	<b>Monthly Average Waste Loading</b> <small>(kilograms per day unless otherwise indicated)</small>
CBOD5	15.0	0.5
Total Suspended Solids	15.0	0.5

## Schedule D

### Monitoring Program

#### Influent Monitoring

<b>Sewage System No. 1 and No. 3 influent distribution tank</b>		
<b>Parameters</b>	<b>Sample Type</b>	<b>Frequency</b>
BOD5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorus	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly

#### Final Effluent Monitoring

<b>Sewage System No. 1</b>		
<b>Sampling location: Final Effluent pump chambers</b>		
<b>Parameters</b>	<b>Sample Type</b>	<b>Frequency</b>
CBOD5	Grab	Weekly
Total Suspended Solids	Grab	Weekly
Total Phosphorus	Grab	Weekly
Total Ammonia Nitrogen	Grab	Weekly
Nitrate Nitrogen	Grab	Weekly
<i>E. Coli</i>	Grab	Weekly
Temperature	Grab	Weekly
pH	Grab	Weekly

<b>Sewage System No. 3</b>		
<b>Sampling Location: Basket Biofilter Tank No. 1</b>		
<b>Parameters</b>	<b>Sample Type</b>	<b>Frequency</b>
CBOD5	Grab	Weekly
Total Suspended Solids	Grab	Weekly

## Groundwater Monitoring

<b>Sampling locations:</b> Groundwater Monitoring Wells P13-1, P13-2, P13-3, P13-18, P13-21, P19-15, P19-22, DP13-4, DP13-5, DP13-6, P09-5, P11-20, P09-8		
<b>Parameters</b>	<b>Sample Type</b>	<b>Frequency</b>
Total Phosphorus	Grab	Monthly
Total Ammonia Nitrogen	Grab	Monthly
Nitrate Nitrogen	Grab	Monthly
Temperature	Grab	Monthly
pH	Grab	Monthly
Chlorides	Grab	Monthly
Conductivity	Grab	Monthly

1. Sampling of DP13-1, DP13-2 and DP13-3 shall be undertaken three times a year (spring, summer and fall), when water is available.
  
2. The open tributary areas around DP13-6 should be sampled three times a year if accessible to provide background water quality in the event that the leachate plume reaches the wetland.
  
2. Groundwater samples shall be taken at each monitoring wells, the number and locations of which to be established with the District Office and analyzed for the listed parameters. Six (6) months prior to commissioning of the Works, samples shall be taken from the monitoring wells to establish background levels of the contaminants.
  
2. The temperature and pH of the effluent from the Works shall be determined in the field at the time of sampling for Total Ammonia Nitrogen. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 0658-A6CJEN issued on May 4, 2016.**

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

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

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

The Notice should also include:

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

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

This Notice must be served upon:

Registrar\*  
Ontario Land Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5  
OLT.Registrar@ontario.ca

and

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

and

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

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

This instrument is subject to Section 38 of the *Environmental Bill of Rights*, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 26th day of June, 2024

A handwritten signature in black ink that reads "A. Ahmed". The signature is written in a cursive style and is positioned above a solid horizontal line.

Aziz Ahmed, P.Eng.

Director

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

KH/

c: District Manager, MECP Peterborough District.  
Jackie Coughlin, Azimuth Environmental Consulting Inc.