

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 8299-D97JAP Issue Date: October 21, 2024

Depaul Music Limited 1170 Birdsall Line Hastings, Ontario

**K0L1Y0** 

Site Location: Birdsall Beach Resort

1170 Birdsall Line

Township of Otonabee-South Monaghan, County of Peterborough

Ontario, K0L 1Y0

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:

establishment, usage and operation of existing and proposed non-municipal Works, for the treatment of sanitary sewage from Birdsall Beach Resort at the above site location and disposal of treated effluent to the subsurface via existing subsurface sewage disposal systems and a proposed Sewage Treatment Plant (BNA iQ.MBBR Wastewater Treatment System) and Final Effluent disposal facility as follows:

**Classification of Sewage Treatment Plant:** Secondary

#### **Details of Service Area:**

- Type of Occupancy: Commercial seasonal trailer park/resort, operated from May to October
- Type and Number of Units:
  - one (1) existing two-bedroom dwelling serviced by the existing "House Subsurface Sewage Disposal System";
  - one (1) existing two-bedroom dwelling serviced by the existing "Garage Subsurface Sewage Disposal System";
  - twenty (20) existing conventional travel trailer/recreational vehicle (RV) sites serviced by the

existing "Washroom Building Subsurface Sewage Disposal System"; and

- a total of two hundred (200) existing and sixty (60) proposed trailer sites to be serviced by the proposed Sewage Treatment Plant and Type A dispersal bed, consisting of:
  - approximately one hundred and ten (110) existing conventional travel trailer/RV sites;
  - approximately ninety (90) existing park model unit (PMU) sites; and
  - sixty (60) proposed conventional travel trailer/RV sites;

#### **Design Capacity of Sewage Treatment Plant:**

Design Capacity with All Treatment Trains in Operation	Upon Completion of Construction of Sewage Treatment Plant
Maximum Daily Flow	110,500 litres per day

#### **Influent and Imported Sewage**

Receiving Location	Types
In Collection System	Sanitary Sewage
At Sewage Treatment Plant	None

#### PROPOSED WORKS

Sewage Treatment Plant - Moving Bed Biofilm Reactor (BNA iQ.MBBR<sup>TM</sup>) Wastewater Treatment System

#### **Equalization Tanks**

• two (2) proposed in-ground precast concrete Equalization Tanks that are equally sized and hydraulically interconnected, having a total approximate working volume of 86.9 cubic metres, and are equipped with a liquid level control system and two (2) sewage pumps (one duty, one standby), receiving raw sewage from the proposed and existing on-site facilities identified above, and discharging effluent to the proposed Primary Sludge Storage Tanks described below via a 50 millimetre diameter forcemain;

#### **Influent Sampling Point**

• Sampling of Influent from the Equalization Tanks;

#### **Primary Treatment System**

- two (2) proposed in-ground precast concrete Primary Sludge Storage Tanks that are equally sized and connected in series, having a total approximate working volume of 86.9 cubic metres, receiving sewage from the Equalization Tank described above, effluent recycle flow from the Aerobic Bioreactor 2 and supernatant from the Secondary Sludge Storage Tank described below, and discharging effluent by gravity to the proposed Primary Clarifier described below;
- one (1) proposed in-ground precast concrete Primary Clarifier, having an approximate working volume of 23.3 cubic metres and a specified surface area of 11.2 square metres, receiving effluent from the second Primary Sludge Storage Tank described above, and discharging effluent by gravity to the Aerobic Bioreactor 1 described below;
- sludge accumulated in the Primary Sludge Storage Tanks, Primary Clarifier, and the Secondary Sludge Storage Tank (as described below) shall be periodically removed for off-site disposal at an approved receiving facility;

#### **Secondary Treatment System**

- two (2) proposed in-ground moving bed biofilm reactor (MBBR) tanks, operating in series as Aerobic Bioreactor 1 and Aerobic Bioreactor 2,
  - each having an approximate working volume of 30.2 cubic meters;
  - containing a combined volume of 22 cubic metres of engineered plastic carrier media providing 11,000 square metres of media surface area;
  - equipped with fine bubble diffusers installed longitudinally on one side of each reactor, two (2) blowers each rated at 100 normal cubic metres per hour (1 blower per reactor), and one (1) effluent recirculation pump within Aerobic Bioreactor 2 that discharges effluent recycle flow to the first Primary Sludge Storage Tank;
  - receiving effluent from the Primary Clarifier and discharging effluent to the proposed Floc Reactor described below;
- one (1) proposed Floc Reactor for phosphorus reduction, having an approximate working capacity of 2.9 cubic metres and equipped with a mixing eductor assembly and a mixing pump for chemical mixing and precipitation, with a coagulant stored and dosed via a pump in the control shed, discharging effluent by gravity to the proposed Secondary Clarifier described below;
- one (1) proposed Secondary Clarifier, having a specified surface area of approximately 11.2 square metres with three (3) sloped wall hoppers, an approximate working capacity of 21.0 cubic metres, and equipped with three (3) sludge return pumps and one (1) surface skimmer pump that discharge sludge into the Secondary Sludge Storage Tank, receiving effluent from the Floc Reactor and

discharging by gravity to the proposed Effluent Pump Tank described below;

• one (1) proposed in-ground precast concrete Secondary Sludge Storage Tank, having an approximate working volume of 23.3 cubic metres, receiving sludge from the Secondary Clarifier described above, with supernatant from the tank discharging by gravity to the proposed Primary Sludge Storage Tank described above;

#### **Effluent Pump Tank**

• one (1) proposed Effluent Pump Tank, having an approximate working volume of 30.2 cubic metres, equipped with a liquid level control system with high level visual/audible alarms and two (2) submersible effluent pumps, one rated at 245 litres per minute at 20.3 metres of total dynamic head (TDH) and one rated at 275 litres per minute at 17.5 metres of TDH, receiving effluent from the Secondary Clarifier and discharging to the proposed Type A dispersal bed described below via two (2) 50 millimetre diameter forcemains;

#### **Chemical Dosing System**

• one (1) proposed chemical dosing system for phosphorus reduction to be housed in the proposed control shed, consisting of one (1) chemical storage tank with secondary containment, one (1) chemical dosing pump and other appurtenances, dosing a coagulant into the Floc Reactor described above;

#### Final Effluent Flow Measurement and Sampling Point

- Final Effluent flow measurement via a proposed flow meter on the effluent pipe within the control shed:
- sampling of Final Effluent from the Effluent Pump Tank prior to discharge to the Type A dispersal bed;

### Final Effluent Disposal Facility - Type A Dispersal Bed ( $Q_{max} = 110,500$ litres per day)

• one (1) proposed raised Type A dispersal bed, to be located to the north of the developed area, consisting of four (4) equally sized cells **each** having a stone layer with an area of 588 square metres (27.2 metres by 21.6 metres), a thickness of 300 millimetres and protected by permeable geo-textile fabric, complete with eighteen (18) runs of 26 metre long 76 millimetre diameter perforated distribution piping spaced 1.2 metres apart, centre to centre, in the stone layer; overlying a 300 millimetre thick sand layer with a percolation time of 6 to 10 minutes per centimetre beneath the stone layer as well as a 300 millimetre thick, 9,699 square metre sand mantle with the same percolation time situated further below extending minimum 15 metres beyond the outermost edge of the stone layer in the direction in which the effluent from the leaching bed will move laterally; and backfilled with 150 millimetre thick porous soil and then 150 millimetre thick topsoil and grass;

#### **Upgrades to Existing Subsurface Sewage Disposal Systems**

- proposed access lids to ground surface and an effluent filter for the existing septic tank in the House Subsurface Sewage Disposal System described below under Existing Works;
- proposed access lids to ground surface, effluent filters for the septic tanks and high level alarm for the pump chamber in the Washroom Building Subsurface Sewage Disposal System described below under Existing Works;

#### **EXISTING WORKS**

#### **Septic Tanks & Pump Chamber**

• two (2) existing 22,712 litre capacity septic tanks (ST4 and ST5) and five (5) existing 7,571 litre capacity septic tanks (ST6 through ST10) located across the existing trailer sites, receiving raw sewage from the existing 200 trailer sites and discharging to the proposed MBBR treatment system (at Equalization Tanks) described above via an existing pump chamber (PC1) located adjacent to ST4 and ST5;

### House Subsurface Sewage Disposal System $(Q_{max} = 1,100 \text{ litres per day})$

one (1) existing subsurface sewage disposal system located to the north of the existing two-bedroom dwelling near the site entrance, with a Maximum Design Flow of 1,100 litres per day and consisting of the following:

- one (1) existing 7,571 litre capacity septic tank, to be upgraded per the Proposed Works section above, receiving raw sewage from the existing dwelling and discharging by gravity to the existing filter bed as described below;
- one (1) existing filter bed with an approximate area of 16.75 square metres and total length of distribution pipe of 9.1 metres;

# Garage Subsurface Sewage Disposal System (Previsously approved under ECA No. 4909-A7TL5) $(Q_{max} = 1,100 \text{ litres per day})$

one (1) existing subsurface sewage disposal system located to the north of the existing two-bedroom dwelling near the site entrance, with a Maximum Design Flow of 1,100 litres per day and consisting of the following:

- one (1) existing 4,500 litre capacity septic tank, equipped with inlet, outlet risers and lids accessible at grade and equipped with an approved effluent filter at the outlet, receiving raw sewage from the existing dwelling and discharging by gravity to the existing filter bed as described below;
- one (1) existing filter bed with an approximate area of 22 square metres and total length of distribution pipe of 20.8 metres, having a diameter of 75 millimetres and comprised of four (4) runs

of approximately 5.2 metres each, equally spaced at approximately 0.9 metres centre to centre, all installed in a 475 millimetre deep stone layer covered with a geo-textile filter fabric, having a minimum separation distance of 900 millimetres between the bottom of the stone layer and the high groundwater table, rock or soil with a percolation rate greater than 50 minutes per centimetre, with the stone layer overlying a filter medium layer having a minimum depth of 750 millimetres and a percolation rate of 30 minutes per centimetre, with the filter bed having a minimum of 250 millimetres deep extended contact area of approximately 72.4 square metres, complete with a minimum of 250 millimetres thick sand mantle with a percolation rate less than 15 minutes per centimetre, extending a minimum of 12 metres downgradient beyond the outermost distribution pipes in any direction in which the effluent will move laterally;

### Washroom Building Subsurface Sewage Disposal System ( $Q_{max} = 9,760$ litres per day)

one (1) existing subsurface sewage disposal system servicing twenty (20) existing trailer sites and an existing washroom building within the central portion of the site, with a Maximum Design Flow of 9,760 litres per day and consisting of the following:

- one (1) existing 22,712 litre capacity septic tank and one (1) existing 7,571 litre capacity septic tank, to be upgraded per the Proposed Works section above, receiving raw sewage from the existing washroom building and discharging to the existing conventional leaching bed as described below via a pump chamber;
- one (1) existing in-ground conventional leaching bed with a total approximate length of distribution pipe of 146.4 metres;

#### Main Subsurface Sewage Disposal System - To be Decommissioned

one (1) existing subsurface sewage disposal system servicing existing two hundred (200) trailer sites, to be decommissioned in accordance with Condition 8.

including all other mechanical system, electrical system, instrumentation and control 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 submitted supporting documents listed in **Schedule A**.

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

- 1. "Annual 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 the operating season of a given 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. "E. coli" refers to coliform bacteria that possess the enzyme beta-glucuronidase and are capable of cleaving a fluorogenic or chromogenic substrate with the corresponding release of a fluorogen or chromogen, that produces fluorescence under long wavelength (366 nm) UV light, or color development, respectively. Enumeration methods include tube, membrane filter, or multi-well procedures. Depending on the method selected, incubation temperatures include 35.5 + 0.5 °C or 44.5 + 0.2 °C (to enumerate thermotolerant species). Depending on the procedure used, data are reported as either colony forming units (CFU) per 100 mL (for membrane filtration methods) or as most probable number (MPN) per 100 mL (for tube or multi-well methods);
- 8. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
- 9. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
- 10. "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);
- 11. "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;
- 12. "Influent" means flows to the Sewage Treatment Plant from the collection system;
- 13. "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;
- 14. "Maximum Daily 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;
- 15. "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;
- 16. "Normal Operating Condition" means the condition when all unit process(es), excluding Preliminary

Treatment System, in a treatment train is operating within its design capacity;

- 17. "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;
- 18. "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;
- 19. "Owner" means Depaul Music Limited, including any successors and assignees;
- 20. "OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40;
- 21. "Preliminary Treatment System" means all facilities in the Sewage Treatment Plant associated with screening and grit removal;
- 22. "Primary Treatment System" means all facilities in the Sewage Treatment Plant associated with the primary sedimentation unit process and includes chemically enhanced primary treatment;
- 23. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
- 24. "Secondary Treatment System" means all facilities in the Sewage Treatment Plant associated with biological treatment, secondary sedimentation and phosphorus removal unit processes;
- 25. "Sewage Treatment Plant" means all the facilities related to sewage treatment within the sewage treatment plant site excluding the Final Effluent disposal facilities;
- 26. "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;
- 27. "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.
- 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; or
  - b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

#### 2. 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 specifications.
- 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 an 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 Treatment Plant in accordance with the Final Effluent parameters design objectives listed in the table(s) included in **Schedule B**.

#### 5. 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 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 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.

- 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** during the operating season.
- 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 ensure that the sludge storage tanks in the MBBR treatment system be inspected at least twice per year, and the sewage sludge accumulated in the sludge storage tanks be periodically withdrawn at the frequency required to maintain efficiency of the treatment system.
- 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 dispersal bed does not exceed 110,500 litres per day.
- 13. The Owner shall maintain a minimum 2,954 square metre vacant reserve area free from any structure, stockpile of materials or underground utilities, located immediately north of the proposed Type A dispersal bed (per Item 3 of **Schedule A**), as a contingency measure for future design, approval and construction of an additional or replacement subsurface disposal bed.
- 14. 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.

#### 6. 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 Paragraph 2.b.
  - c. definitions for frequency:
    - i. Monthly means once every month;
    - ii. Semi-annually means once every six months;
    - iii. Annually means once every year;
  - d. a schedule of the day of the week/month for the scheduled sampling shall be created. The sampling schedule shall be revised and updated every year through rotation of the day of the week for the scheduled sampling program, except when the actual scheduled monitoring frequency is three (3) or more times per week.
- 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 Treatment Plant by pumping rates;
- b. Final Effluent discharged from the Sewage Treatment Plant by continuous flow measuring devices and instrumentations:
- 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.

#### 7. REPORTING

- 1. 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.
- 2. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
- 3. 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 system;
  - c. a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates and a comparison to the design objectives in this Approval, including an overview of the success and adequacy of the Works;
  - d. a summary and interpretation of groundwater monitoring data;
  - e. a summary of any deviation from the monitoring schedule and reasons for the current reporting year and a schedule for the next reporting year;
  - 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;
- 1. a summary of any complaints received and any steps taken to address the complaints;
- m. a summary of all 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.

#### 8. DECOMMISSIONING OF UN-USED WORKS

- 1. The Owner shall properly abandon any portion of unused Existing Works, as directed below, and upon completion of decommissioning, report in writing to the District Manager:
  - a. any sewage pipes leading from building structures to unused Works components shall be disconnected and capped;
  - b. any unused septic tanks, holding tanks and pump chambers shall be completely emptied of its content by a licensed hauler and either be removed, crushed and backfilled, or be filled with granular material;
  - c. if the area of the existing leaching bed is going to be used for the purposes of construction of a replacement bed or other structure, all distribution pipes and surrounding material must be removed by a licensed hauler and disposed off site at an approved waste disposal site; otherwise the existing leaching bed may be abandoned in place after disconnecting, if there are no other plans to use the area for other purposes.

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 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.
- 6. Condition 6 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
- 7. Condition 7 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.
- 8. Condition 8 is included to ensure that any components of un-used Works are properly decommissioned.

#### Schedule A

- 1. Application for Environmental Compliance Approval dated June 21, 2023 and and received on June 22, 2023, submitted by Depaul Music Limited for the proposed MBBR treatment system and Type A dispersal bed, including the design report, final plans, specifications and other supporting information.
- 2. Letter Re: Birdsall Beach Resort ECA Application Cambium Response to MECP Review Comments, dated August 16, 2024 and prepared by Jeremy Tracey, P.Eng. of Cambium Inc.
- 3. Letter Re: Birdsall Beach Resort Sewage System Design Update (MECP Ref 6236-CT3GLF), dated September 23, 2024 and prepared by Jeremy Tracey, P.Eng. of Cambium Inc.
- 4. Email Re: Birdsall Beach Resort ECA Amend Ref#6236-CT3GLF (Cambium Ref. 13858-001), received at 11:47 am on October 2, 2024 from Jeremy Tracey, P.Eng. of Cambium Inc.
- 5. Email Re: Birdsall Beach Resort ECA Amend Ref#6236-CT3GLF (Cambium Ref. 13858-001), received at 11:09 am on October 3, 2024 from Jeremy Tracey, P.Eng. of Cambium Inc.

# Schedule B

# **Final Effluent Design Objectives**

Final Effluent Parameter	Averaging Calculator	Objective
		(milligrams per litre unless otherwise indicated)
CBOD5	Annual Average Effluent Concentration	10
Total Suspended Solids	Annual Average Effluent Concentration	10
Total Phosphorus (TP)	Annual Average Effluent Concentration	1
pН	Single Sample Result	between 6.5 - 8.5 inclusive

### **Schedule C**

# **Monitoring Program**

# **Influent** - Equalization Tanks

Parameters	Sample Type	Minimum Frequency
BOD5	Grab	
Total Suspended Solids	Grab	Ossantanlar Assisa a tha an anotic a saccar
Total Phosphorus	Grab	Quarterly during the operating season
Total Kjeldahl Nitrogen	Grab	

# Final Effluent - Effluent Pump Tank

Parameters	Sample Type	Minimum Frequency
CBOD5	Grab	Monthly during the operating season
Total Suspended Solids	Grab	Monthly during the operating season
Total Phosphorus	Grab	Monthly during the operating season
pН	Grab/Probe/Analyzer	Monthly during the operating season
Nitrate as Nitrogen	Grab	Semi-annually (spring and fall)
Nitrite as Nitrogen	Grab	Semi-annually (spring and fall)

### **Groundwater** - Northern water supply well\*

Parameters	Sample Type	Minimum Frequency
Nitrate Nitrogen	Grab	
E. Coli	Grab	Semi-annually (spring and fall)
Total Coliforms	Grab	

<sup>\*</sup>See Figure 1 of the design report (Item 1 of **Schedule A**)

# Schedule C (Cont'd)

# ${\bf Sludge/Biosolids} - {\bf Sludge\ Storage\ Tank}$

Parameters	Sample Type	Minimum Frequency
Total Solids	Grab	Annually
Total Phosphorus	Grab	Annually
Total Ammonia Nitrogen	Grab	Annually
Nitrate Nitrogen	Grab	Annually
Metal Scan	Grab	Annually
- Arsenic		
- Cadmium		
- Cobalt		
- Chromium		
- Copper		
- Lead		
- Mercury		
- Molybdenum		
- Nickel		
- Potassium		
- Selenium		
- Zinc		

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 4909-A7TL53 issued on March 11, 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

The Minister of the Environment, Conservation and Parks 777 Bay Street, 5th.Floor Toronto, Ontario M7A 2J3 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 21st day of October, 2024

and

Sherif Hegazy, P.Eng.

Director

and

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

SW/

c: District Manager, MECP Peterborough District Office Jeremy Tracey, P.Eng., Cambium Inc.