

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 0471-CNNMMW

Issue Date: July 31, 2023

1. Infrastructure Ontario  
2351 Highway 61  
Thunder Bay, Ontario  
P7J 1E8

2. EllisDon Corporation  
2680 Queensview Drive  
Ottawa, Ontario  
K2B 8J9

Site Location: Thunder Bay Corrections Centre  
2495 Highway 61  
City of Thunder Bay, District of Thunder Bay  
P7C 4Y4

*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:*

establishment, usage and operation of new non-municipal sewage works, for the treatment and disposal of sanitary sewage from a new correctional facility, comprising Thunder Bay Correctional Complex (TBCC) and Thunder Bay Modular Built Facility (MBF) facilities, with a Maximum Daily Flow Rate of 834,605 Litres per day, and Equalized Flow Rate of 400,000 L/day, located at 2351 Highway 61, Thunder Bay, comprising;

**PROPOSED WORKS**

**1. Flow Equalization and Pumping**

**Influent Lift Station/Equalization Chamber**

One proposed sewage lift station consisting of a 7315mm x 3658 mm, 13.6 m deep pre-cast concrete structure with two submersible pumps and also acting as an equalization tank designed with a detention time of 50 minutes, and to accommodate a 4-hour peak flow event reducing from the peak flow of 834,605 L/day to not more than 400,000 L/day equalized flow;

## **2. Central Wastewater Treatment Plant (CWWP)**

Central Wastewater Treatment Plant, located east of the parking lot, designed to treat sanitary sewage from the proposed Correctional Facility, receiving equalized flow of 400,000 L/day, comprising;

### **A. Preliminary Treatment System**

#### Screening

- One manual 6 mm bar screen and rake complete with a screening washer/compactor with a 2 m<sup>3</sup>/hour capacity, receiving a raw sewage from Sewage Pumping Station/Lift Station and discharging to a Rotating Biological Contactor plant;
- one 6 mm Belt Screen, complete with a screening washer/compactor and a 2 HP motor, receiving the raw sewage from Sewage Pumping Station/Lift Station and discharging to the Rotating Biological Contactor;

### **B. Primary Treatment System**

- a integrated Primary Settling tank/clarifier, having approximate dimensions of 4.41 m x 8.54 m x 5 m high providing an approximate volume of 14 m<sup>3</sup>;

### **C. Secondary Treatment System**

#### Package Plant RBC (Rotating Biological Contactor) Package Plant (BC21-BFP)

- One rotating biological contactor (RBC) package plant, rated at capacity of 400 m<sup>3</sup>/d, receiving the effluent from the screening facilities and outletting to a Final Clarifier, including the following components:
- a three-stage RBC unit operated in series;
- 2051 m<sup>2</sup> of media in each of the Stage 1, Stage 2, and Stage 3;
- of 6154 m<sup>2</sup> of biological support media on a rotating shaft driven by a 2.25 kilowatt hour motor, with built in unit bypass to the Drum Filter;
- one 0.375 kilowatt hour sludge pump, pumping the effluent from the Final Clarifier to the Primary Clarifier;

- a Final Clarifier Tank 2.5 m wide, 5 m long and 4.41 m high, with a working volume of approximately 31 m<sup>3</sup>;

### **Drum Filter**

one (1) Hydrotech Drum filter (Model HDF-1602 or approved equivalent), having a design capacity of 180 L/s, having a surface area of approximately 3.6 m<sup>3</sup>, complete with a flow meter located prior to the drum filter measuring flow to the drum filter; the drum filter is equipped with eight (8) filter panels, complete with a high pressure cleaning system and a backwash system consisting of nozzles and a 1.1 Kw backwash pump, discharging by gravity to the Valve chamber, and a separate bypass capacity of 95 L/s;

### **D. Final Effluent Flow Monitoring and Sampling Facilities**

- Three (3) flow meters, located in the valve chamber, one per each dispersion field zone, to measure effluent dosage to each of the final disposal bed;

## **3. Final Effluent Disposal Facilities**

### **Valve Chamber**

one valve chamber, located adjacent to the CWWP building, containing three (3) flow meters, one per each dispersion bed to measure effluent dosage to each of the final disposal bed; and plug valves, check valves, connected to three (3) 100mm forcemains (one for each dosing pump and beds), conveying the effluent from the proposed treatment plant and running south along the new access road to the TBCC Complex, and east in an easement running parallel to highway 61, and south crossing highway 61 to the leaching beds.

### **Dosing Chamber**

One dosing chamber containing three dosing pumps discharging each capable of discharging a daily volume of 68 m<sup>3</sup> of treated effluent to each of the 3 dispersion beds once per day, resulting in an approximate 25mm of effluent volume in each bed within the open area of infiltrator units, complete with three (3) submersible dosing pumps, each rated at 10 L/s under a TDH of 19.96m, each dosing one of the three disposal fields approximately once per day, conveying the Drum Filter effluent through a 100 mm forcemain from the CWWP, across highway 61 to the proposed Subsurface Disposal Beds;

### **Subsurface Disposal Beds (Q= 400,00 L/day)**

One pressurized subsurface disposal system, consisting of three (3) raised zones, constructed at varying elevations well above the water elevation of the Mosquito Creek tributary, with a total proposed sand area for the large subsurface disposal system of approximately 30,600 m<sup>2</sup>; each zone equipped with Infiltration Chambers to distribute wastewater onto the sand disposal bed, as described below;

each zone includes infiltration chambers constructed over an approximately 2904 m<sup>2</sup> (66m x 44m); comprising of two equal size cells (a total of 6 equal size cells in the 3 disposal zones), each cell consisting of 2670 – Quick4® chambers (the 3 zones contain a total of 8,010 – Quick4® infiltrator units spread over 198 rows of 55 units each (each cell including 66 rows of 55 units)), located on a raised compacted sand mound of 0.6 m high and at least 150mm of native soil filled over the infiltrator units and a minimum of 50mm to 100mm of topsoil over it; each of the Quick4® units are 836 mm x 1219 mm x 406 mm, each zone has a total installed height between 1.0 m – 1.35 m above ground level, with 3:1 side slope;

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. "Bypass" means diversion of sewage around one or more treatment processes, excluding Preliminary Treatment System, within the Sewage Treatment Plant with the diverted sewage flows being returned to the Sewage Treatment Plant treatment train upstream of the Final Effluent sampling point(s) and discharged via the approved effluent disposal facilities;
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. "Event" means an action or occurrence, at a given location within the Works that causes a Bypass. An

Event ends when there is no recurrence of Bypass in the 12-hour period following the last Bypass.

9. "Final Effluent" means effluent that is discharged to the environment through the approved effluent disposal facilities, including all Bypasses, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point(s);
10. "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;
11. "Influent" means flows to the Sewage Treatment Plant from the collection system;
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. "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;
14. "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;
15. "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;
16. "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;
17. "Owner" means EllisDon Corporation and Infrastructure Ontario, including any successors and assignees;
18. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40;
19. "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;
20. "Preliminary Treatment System" means all facilities in the Sewage Treatment Plant associated with screening and grit removal;
21. "Primary Effluent" means the effluent from the Primary Treatment System;
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.

*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.
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. Within ninety (90) 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. BYPASSES**

1. Any Bypass is prohibited, except:
  - a. an emergency Bypass when a structural, mechanical or electrical failure causes a temporary reduction in the capacity of a treatment process or when an unforeseen flow condition exceeds the design capacity of a treatment process that is likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset, if a portion of the flow is not bypassed;
  - b. a planned Bypass that is a direct and unavoidable result of a planned repair and maintenance procedure or other circumstance(s), the Owner having notified the District Manager in writing at least fifteen (15) days prior to the occurrence of Bypass, including an estimated quantity and duration of the Bypass, an assessment of the impact on the quality of the Final Effluent and the mitigation measures if necessary, and the District Manager has given written consent of the Bypass.
2. Notwithstanding the exceptions given in Paragraph 1, the Operating Agency shall undertake everything practicable to maximize the flow through the downstream treatment process(es) prior to bypassing.
3. At the beginning of a Bypass Event, the Owner shall immediately notify the District Manager. This notice shall include, at a minimum, the following information:
  - a. the type of the Bypass as indicated in Paragraph 1 and the reason(s) for the Bypass;
  - b. the date and time of the beginning of the Bypass;
  - c. the treatment process(es) gone through prior to the Bypass and the treatment process(es) bypassed;
  - d. the effort(s) done to maximize the flow through the downstream treatment process(es) and the reason(s) why the Bypass was not avoided.



4. Upon confirmation of the end of a Bypass Event, the Owner shall immediately notify the District Manager. This notice shall include, at a minimum, the following information:
  - a. the date and time of the end of the Bypass;
  - b. the estimated or measured volume of Bypass.
5. For any Bypass Event, the Owner shall collect daily sample(s) of the Final Effluent, inclusive of the Event and analyze for all effluent parameters outlined in Compliance Limits condition that require composite samples, following the same protocol specified in the Monitoring and Recording condition for the regular samples. The sample(s) shall be in addition to the regular Final Effluent samples required under the monitoring and recording condition. If the Event occurs on a scheduled monitoring day, the regular sampling requirements prevail. If representative sample for the effluent parameter(s) that require grab sample cannot be obtained, they shall be collected after the Event at the earliest time when situation returns to normal.

## 5. 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 the subsurface disposal bed does not exceed 400,000 litres per day.

## 6. 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 CBOD<sub>5</sub> & TSS 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**.

- b. Single Sample concentration of Total Nitrate 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**.

## 7. OVERFLOWS

1. Any Overflow is prohibited, except:
  - a. an emergency Overflow in an emergency situation when a structural, mechanical or electrical failure causes a temporary reduction in the capacity of the Works or when an unforeseen flow condition exceeds the design capacity of the Works that is likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset, if a portion of the flow is not overflowed;
2. Notwithstanding the exceptions given in Paragraph 1, the Operating Agency shall undertake everything practicable to maximize the flow through the downstream treatment process(es) and Bypass(es) prior to overflowing.
3. At the beginning of an Overflow Event, the Owner shall immediately notify the District Office. This notice shall include, at a minimum, the following information:
  - a. the type of the Overflow as indicated in Paragraph 1 and the reason(s) for the Overflow;
  - b. the date and time of the beginning of the Overflow;
  - c. the point of the Overflow from the Works, the treatment process(es) gone through prior to the Overflow, the disinfection status of the Overflow and whether the Overflow is discharged through the effluent disposal facilities or an alternate location;
  - d. the effort(s) done to maximize the flow through the downstream treatment process(es) and Bypass(es) and the reason(s) why the Overflow was not avoided.
4. Upon confirmation of the end of an Overflow Event, the Owner shall immediately notify the District Office. This notice shall include, at a minimum, the following information:
  - a. the date and time of the end of the Overflow;
  - b. the estimated or measured volume of the Overflow.

5. For any Overflow Event

- a. in the Sewage Treatment Plant, the Owner shall collect grab sample(s) of the Overflow, one near the beginning of the Event and one every eight (8) hours for the duration of the Event, and have them analyzed at least for CBOD5, total suspended solids, total phosphorus, Total Ammonia Nitrogen, Nitrate as N, Nitrite as N, Total Kjeldahl nitrogen, *E. coli*, except that raw sewage and primary treated effluent Overflow shall be analyzed for BOD5, total suspended solids, total phosphorus and total Kjeldahl nitrogen only.
- b. at a sewage pumping station in the collection system, the Owner shall collect at least one (1) grab sample representative of the Overflow Event and have it analyzed for BOD5, Total Suspended Solids, Total Phosphorus and Total Kjeldahl Nitrogen.

**8. 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. 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, including procedures to minimize Bypasses;

- 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 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 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 septic tanks be inspected **at least twice per year** by a qualified person, and the sewage sludge accumulated in the septic tanks 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.
  11. 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;
  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 that flow of effluent discharged into the subsurface disposal bed does not exceed the its design Maximum Daily Flow Rate.
  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.

## 9. 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;
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. Influent flow to the Sewage Treatment Plant by continuous flow measuring devices and instrumentations
    - b. Final Effluent discharged from the Sewage Treatment Plant to each of the Disposal Beds 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.

## 10. 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, interpretation of analytical results and comparison with the compliance limits;
  - e. a summary and interpretation of Surface Water monitoring data including water level, flow rate, interpretation of analytical results and comparison with the compliance limits;
  - 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;
- l. a summary of any complaints received and any steps taken to address the complaints;
- m. a summary of all Bypasses, Overflows, 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/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 Bypasses is included to indicate that Bypass is prohibited, except in circumstances where the failure to Bypass could result in greater damage to the environment than the Bypass itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Bypass Events.
5. Condition 5 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.
6. Condition 6 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.
7. Condition 7 regarding Overflows is included to indicate that Overflow of untreated or partially treated sewage to the receiver is prohibited, except in circumstances where the failure to Overflow could result in greater damage to the environment than the Overflow itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Overflow Events.

8. Condition 8 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.
9. Condition 9 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.
10. Condition 10 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 July 19, 2022 and received on July 19, 2022.

## Schedule B

### Final Effluent Design Objectives

Concentration Objectives upon completion of construction of all Proposed Works

Final Effluent sampling point: Prior to Effluent Dosing Chamber (30-V-02)

<b>Final Effluent Parameter</b>	<b>Averaging Calculator</b>	<b>Objective</b> (milligrams per litre unless otherwise indicated)
CBOD5	Single Sample Result	10 mg/L
Total Suspended Solids	Single Sample Result	10 mg/L
Total Nitrate	Single Sample Result	20 mg/L

## Schedule C

### Final Effluent Compliance Limits

**Concentration Limits upon completion of construction of all Proposed Works**

**Final Effluent sampling point:** Prior to Effluent Dosing Chamber (30-V-02)

<b>Final Effluent Parameter</b>	<b>Averaging Calculator</b>	<b>Limit</b> (maximum unless otherwise indicated)
CBOD5	Single Sample Result	15 mg/L
Total Suspended Solids	Single Sample Result	15 mg/L
Total Nitrate	Single Sample Result	25 mg/L

## Schedule D

### Monitoring Program

#### Influent Monitoring Table

**Influent sampling point:** Sample Taps (06-V-A/B) located on the lower level of the CWWP Building prior to the Screening System

<b>Sample Type</b>	Grab
<b>Minimum Frequency</b>	Quarterly*
<b>Parameter Type</b>	TBOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Total Kjeldhal Nitrogen, pH, Alkalinity, Nitrate as Nitrogen, Nitrite as Nitrogen

\*period during the sampling events to be spread evenly

#### Final Effluent Monitoring Table

**Final Effluent sampling point:** Prior to Effluent Dosing Chamber (30-V-02)

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

\*period during the sampling events to be spread evenly

### Groundwater Monitoring Table

Groundwater monitoring/sampling locations: wells BHMW172 and BHMW173

<b>Sample Type</b>	Grab
<b>Minimum Frequency</b>	Twice every year (Once every Spring and Fall)*
<b>Parameter Type</b>	Total 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

### Surface Water Monitoring Table

Surface Water monitoring/sampling locations: SW1, SW3, SW4

<b>Sample Type</b>	Grab
<b>Minimum Frequency</b>	Twice every year (Once every Spring and Fall)*
<b>Parameter Type</b>	Total Phosphorus, Unionized Ammonia, Total Kjeldahl Nitrogen, Nitrate as Nitrogen, Nitrite as Nitrogen, Chloride, Total Dissolved Solids, Field pH, Field Temperature and Conductivity.  Water Level and Stream Flow Measurement at location SW3

\*period during the sampling events to be spread evenly

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 Hearing") shall state:

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

The Notice should also include:

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

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

This Notice must be served upon:

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

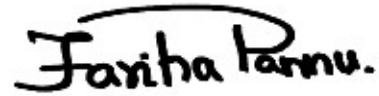
**\* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or [www.olt.gov.on.ca](http://www.olt.gov.on.ca)**

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 31st day of July, 2023

A handwritten signature in black ink that reads "Fariha Pannu." The signature is written in a cursive style with a large, sweeping initial 'F'.

---

Fariha Pannu, P.Eng.

Director

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

KH/

c: District Manager, MECP Thunder Bay District  
Tony Whalen, EXP Services Inc.