

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 1755-BX8KSA
 Issue Date: May 21, 2021

Thomas Cavanagh Construction Limited
 9094 Cavanagh Road
 Ashton, Beckwith
 Ontario. K0A 1B0

Site Location: Bourne Quarry
 Lot 16, Concession 2
 Township of Beckwith
 County of Lanark

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:

sewage works for the collection, transmission, treatment and disposal of quarry water (i.e. stormwater and groundwater) collecting within the confines of the Quarry, consisting of the following:

STORMWATER & GROUNDWATER MANAGEMENT

Quarry Sump

- **quarry sump** initially located on the east side of the quarry but periodically relocated in the quarry floor as extraction operations progress, receiving quarry water from various points in the quarry and discharging via direct piping to a ditch along the eastern property boundary to a wetland areas (unevaluated wetlands) and associated watercourse (a tributary to King's Creek) at the south east corner of the site, then to the Jock River, and ultimately to the Rideau River.

The quarry sump dimensions, and the associated permissible discharge rates are presented in the following table:

Configuration Number	Surface Area of Sump (square metres)	Depth of Sump (metres)	Discharge Rate (litres per second)
No. 1	2,620	3.5	up to 91
No. 2	3,720	3.5	up to 129
No. 3	4,810	3.5	up to 167
No. 4	5,900	3.5	up to 205

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 submitted supporting documents in Schedule A.

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

"Approval" means this environmental compliance approval, any schedules attached to it, and the Application;

"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;

"District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works are geographically located;

"EPA" means the *Environmental Protection Act, R.S.O. 1990, c.E.19* , as amended;

"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;

"Owner" means Thomas Cavanagh Construction Limited, and includes its successors and assignees;

"OWRA" means the *Ontario Water Resources Act, R.S.O. 1990, c. O.40* , as amended; and

"Works" means the sewage works described in the Approval.

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

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

- (1) The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- (2) Except as otherwise provided by these terms and conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with this Approval.
- (3) Where there is a conflict between a provision of this environmental compliance approval and any document submitted by the Owner, the conditions in this environmental compliance approval shall take precedence. Where there is a conflict between one or more of the

documents submitted by the Owner, the Application shall take precedence unless it is clear that the purpose of the document was to amend the Application

- (4) Where there is a conflict between the documents listed in the Schedule A, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
- (5) The terms and conditions of this Approval are severable. If any term and condition of this environmental compliance approval, or the application of any requirement of this environmental compliance approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.
- (6) 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 sewage 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

- (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* ; and
 - (d) change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the “Initial Return” or “Notice of Change” filed under the *Corporations Information Act, R.S.O. 1990, c. C.39* , shall be included in the notification to the District Manager.
- (2) In the event of any change in ownership of the Works, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager.

- (3) The Owner shall ensure that all communications made pursuant to this condition refer to the number at the top of this environmental compliance approval.

3. OPERATION MANUAL

- (1) The Owner shall prepare an operations manual prior to the construction, use and operation of the Works that includes, but is not limited to, the following information:
 - (a) operating procedures for routine operation of the Works;
 - (b) inspection programs, including frequency of inspection, for the Works and the methods or tests to be employed to detect when maintenance is necessary as well as downstream receiver inspections for the occurrence of erosion and flooding;
 - (c) repair and maintenance programs, including the frequency of repair and maintenance for the Works;
 - (d) contingency plans and procedures for dealing with a potential spill, bypasses or any other abnormal situations, including notifying the District Manager of the situation; and
 - (e) procedures for receiving and responding to public complaints.
- (2) The Owner shall review and update the operations manual from time to time and shall retain a copy of the updated manual on-site at the Works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

4. OPERATION AND MAINTENANCE

- (1) The Owner shall ensure that the Works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained.
- (2) The Owner shall inspect the sump and outlet structure on a monthly basis and keep a log or record of the inspections at the Quarry.
- (3) The Owner shall carry out on an as-needed basis, specific maintenance requirements like removing build-up, associated with the sump and outlet structure.
- (4) The Owner shall, upon identification of a loss of oil and fuel, take immediate action to prevent the further occurrence of such loss and prevent the spill from entering into the sump.
- (5) In furtherance of, but without limiting the generality of, the obligation imposed by subsection (1), the Owner shall ensure that equipment and material for the containment, clean-up and disposal of oil and fuel and materials contaminated with oil or fuel are kept on hand and in

good repair for immediate use in the event of:

- (a) loss of oil or fuel during refuelling or equipment maintenance;
- (b) a spill within the meaning of Part X of the Environmental Protection Act; and/or
- (c) the identification of an abnormal amount of oil or fuel in the sump.

5. EFFLUENT LIMITS

- (1) The Owner shall design, construct, operate and maintain the Works such that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Table 1 - Effluent Limits	
Effluent Parameter	Concentration Limit (milligrams per litre unless otherwise indicated)
Column 1	Column 2
Total Suspended Solids	25
Oil and Grease	15

- (2) For the purposes of determining compliance with and enforcing Condition 5.(1):
 - (a) non-compliance with respect to a Concentration Limit is deemed to have occurred when any single grab sample analyzed for a parameter named in Column 1 of Table 1 is greater than the corresponding maximum concentration set out in Column 2 of Table 1.

6. EFFLUENT - VISUAL OBSERVATIONS

- (1) Notwithstanding any other condition in this Approval, the Owner shall ensure that the effluent from the Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.
- (2) Notwithstanding any other condition in this Approval, the Owner shall ensure that the effluent from the Works shall not cause flooding or erosion to the downstream receivers and in particular Road flooding.

7. MONITORING AND RECORDING

The Owner shall, upon issuance of this Approval, carry out the following monitoring program:

- (1) All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time

period being monitored.

- (2) Samples shall be collected and analyzed at the following sampling point, at the sampling frequencies and using the sample type specified for each parameter listed:

Table 2 - Effluent and Surface Water Monitoring	
<p>Station SW-1: Quarry Discharge (collected where the pumped quarry water leaves the pipe and flows into the drainage ditch along the eastern edge of the property);</p> <p>Station SW-3: Downstream Station (collected after confluence of quarry discharge into the receiver); and</p> <p>Station SW-4: Downstream Station (collected in the wet area where the quarry effluent leaves the Bourne Quarry property).</p>	
Frequency	<p>Monthly during period of quarry sump discharge at SW-1, SW-3 and SW-4.</p> <p>Monthly during period of no quarry sump discharge at SW-3 and SW-4.</p>
Sample Type	Grab
Parameters	<p>Field: Conductivity, pH and Temperature.</p> <p>Laboratory: Alkalinity, Aluminium, Barium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Copper, Cyanide, Dissolved Organic Carbon, Hardness, Iron, Lead, Magnesium, Manganese, Nickel, Nitrate Nitrogen, Nitrite Nitrogen, Phenols, Potassium, Silicon, Sodium, Strontium, Sulphate, Total Ammonia Nitrogen, Total Dissolved Solids, Total Kjeldahl Nitrogen, Total Oil and Grease, Total Petroleum Hydrocarbon, Total Phosphorus, Total Suspended Solids, Turbidity, Vanadium, and Zinc.</p>

Table 3 - Effluent and Surface Water Monitoring	
<p>Station SW-1: Quarry Discharge (collected where the pumped quarry water leaves the pipe and flows into the drainage ditch along the eastern edge of the property); and</p> <p>Station SW-4: Downstream Station (collected in the wet area where the quarry effluent leaves the Bourne Quarry property).</p>	
Frequency	Bi-weekly in June, July, August and September during period of quarry sump discharge.
Sample Type	Grab
Parameters	<p>Field: pH and Temperature.</p> <p>Laboratory: Total Ammonia Nitrogen.</p>

Table 4 - Surface Water Monitoring

Station SW-3: Downstream Station (near the culvert located at SW-3); and
Station SW-4: Downstream Station (in the wet area where the quarry effluent leaves the Bourne Quarry property).

Frequency	Continuous basis during ice-free periods, when the quarry is both discharging or not discharging to the receiver.
Parameters	Water level (using staff gauges and pressure transducer data-loggers)

- (3) The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following:
 - (a) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (August 1994), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions; and
 - (b) the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.
- (4) 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).
- (5) The Owner shall undertake a visual inspection at stations SW-4 and SW-3 at the time of sampling being conducted pursuant to subsection (2), for the presence of erosion and flooding and shall record and report the findings in the annual performance report.
- (6) 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) The measurement frequencies and analytical parameters specified in subsection (2) in respect of any parameter are minimum requirements which may, after twelve (12) months of monitoring in accordance with this condition, be modified by the Director in writing from time to time.

8. REPORTING

- (1) The Owner shall report to the District Manager or designate, any exceedence of any parameter specified in Conditions 5 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedence.

- (2) In addition to the obligations under Part X of the EPA, the Owner shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and 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, and submit to the District Manager, a performance report, on an annual basis, on or before April 1st. The reports shall contain, but shall not be limited to, the following information:
 - (a) all monitoring data in hard copy and electronic spreadsheet that can be manipulated by the reviewer and include, but not be limited to, a summary and interpretation of all monitoring data collected pursuant to condition 7 and a comparison to the effluent limits outlined in condition 5, and the Provincial Water Quality Objective (PWQO) for the monitored parameters, including an overview of the success and adequacy of the Works, presentation of photographic records of inspections and an assessment of potential background reference locations;
 - (b) an assessment of the impact of the quarry discharge on the receiver including water quality and quantity during periods of discharge and no discharge;
 - (c) a description of any operating problems encountered and corrective actions taken;
 - (d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
 - (e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment; and
 - (f) any other information the District Manager requires from time to time.

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

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. Condition 1.(6) is included to emphasize that the issuance of this Approval does not diminish any other statutory and regulatory obligations to which the Owner is subject in the construction, maintenance and operation of

the Works. The Condition specifically highlights the need to obtain any necessary conservation authority approvals. The Condition also emphasizes the fact that this Approval doesn't limit the authority of the Ministry to require further information.

2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the works in compliance with it.
3. Condition 3 is included to ensure that a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner and made available to the Ministry. Such 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.
4. Condition 4 is included to ensure that the Works will be operated and maintained in a manner enabling compliance with the terms and conditions of this Approval, such that the environment is protected and deterioration, loss, injury or damage to any person or property is minimised and/or prevented.
5. Conditions 5 and 6 are imposed to ensure that the effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receivers.
6. Condition 7 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and effluent limits specified in the Approval and that the Works does not cause any impairment to the receiver.
7. Condition 8 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

SCHEDULE A

1. Environmental Compliance Approval Application for Industrial Sewage Works submitted by Kevin MacKenzie, P.Eng., Golder Associates Ltd., and signed by Lori Cavanagh, Thomas Cavanagh Construction Limited, dated October 20, 2020; and all supporting documentation and information.

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

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

The Notice should also include:

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

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

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

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

AND

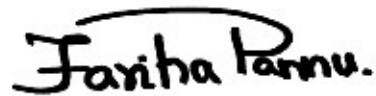
The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

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

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

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

DATED AT TORONTO this 21st day of May, 2021



Fariha Pannu, P.Eng.
Director

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

AA/

c: District Manager, MECP Ottawa District Office
Kevin MacKenzie, P.Eng., Golder Associates Ltd.