



Ontario

Ministry
of the
Environment

Ministère
de
l'Environnement

AMENDED CERTIFICATE OF APPROVAL
MUNICIPAL AND PRIVATE SEWAGE WORKS

The Corporation of the Township of Huron-Kinloss
21 Queen Street, PO Box 130
Ripley, Ontario
N0G 2R0

Site Location: Ripley Lagoons
Lot 14, Concession 7
Huron-Kinloss Township, County of Bruce

You have applied in accordance with Section 53 of the Ontario Water Resources Act for approval of:

the following "Previous Works" approved under:

Certificate of Approval No. 3-07724-88-006 dated August 26, 1988; and includes works marked by

● *approved under Amendment to Certificate of Approval No. 3-07724-88-006 dated September 1, 1992, as follows:*

an existing sewage pumping station, sewage forcemains and appurtenances and sewage treatment works having an increase in the "Average Daily Flow" "Rated Capacity" from 380 m³/d to 690 m³/d, with treated effluent discharge to the South Pine River, located in the Village of Ripley and the Township of Huron as follows:

SEWAGE FORCEMAIN

740m of 150mm diameter forcemain thorough Lot 14, Concession 7, Township of Huron;

SEWAGE PUMPING STATION

Sewage pumping station located in part of Lot 56, Plan 100, north of Park Street in the Village of Ripley and cons

- a concrete wet wall 2.4m in diameter and 10.2m deep
- two submersible pumps rated 15.6 L/s at 18.3 a TDH each;
- an emergency station bypass;
- a 10 kW standby diesel driven generator not located in 4.6m x 6.0 a concrete block building;
- a 27 cubic meters fibreglass reinforced polyester chemical storage tanks;

- two metering pumps sized at 30 L/h each at up to 500 kPa pressure;
- complete with all yard piping, mechanical and electrical works;

SEWAGE TREATMENT WORKS

Sewage treatment works on part of Lot 14, Concession 7, Township of Huron and consisting of:

WASTE STABILIZATION PONDS

- two cell conventional lagoon system mixed for minimum retention of 245 days at average design flow of 3051 m³/d with a working depth of 1.5m;
- one additional lagoon cell with approximately 38,080 m³ volume and a working depth of 1.5m, located on part of Concession 7 and adjacent to the existing two facultative lagoons;

POST AERATION CELL

- an average lagoon sized for 12 hours retention at the peak discharge rate of 5338 m³/d and with a working depth of 1.5m;

SUB-SURFACE DIFFUSED AIR AERATION SYSTEM

- provision for diffused air facilities comprising one blower sized at 12L L/s housed in a 5m x 6m concrete block structure, air header piping and 25 static tube aerators in the aerated lagoon.

SITE WORK AND STRUCTURES

- yard piping and appurtenances;
- mechanical and electrical works;
- effluent monitoring facilities;
- stream flow gauge at South Pine River
- 550 m of 375mm diameter outfall sewers across Lot 14, Concession 6, Township of Huron

all in accordance with the Environmental Study Report (September 8, 1987) and addresses to final to Final Report (September 15, 1988) prepared by B.M. Ross and Associates limited consulting Engineers

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

“Act ” means the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended;

"*Annual Average Concentration* " means the arithmetic mean of the *Monthly Average Concentrations* of a contaminant in the effluent calculated for any particular calendar year;

"*Annual Average Loading* " means the value obtained by multiplying the *Annual Average Concentration* of a contaminant by the *Average Daily Flow* over the same calendar year;

"*Average Daily Flow* " means the cumulative total sewage flow to the sewage works during a calendar year divided by the number of days during which sewage was flowing to the sewage works that year;

"*CBOD5* " means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

"*Certificate* " means this entire certificate of approval document, issued in accordance with Section 53 of the *Act* , and includes any schedules;

"*Daily Concentration* " means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;

"*Director* " means any *Ministry* employee appointed by the Minister pursuant to section 5 of the *Act* ;

"*District Manager* " means the District Manager of the Barrie District Office of the Ministry;

"*Ministry* " means the Ontario Ministry of the Environment;

"*Monthly Average Concentration* " means the arithmetic mean of all *Daily Concentrations* of a contaminant in the effluent sampled or measured, or both, during a calendar month;

"*Monthly Average Daily Flow* " means the cumulative total sewage flow to the sewage works during a calendar month divided by the number of days during which sewage was flowing to the sewage works that month;

"*Owner* " means The Corporation of the Township of Huron-Kinloss and includes its successors and assignees;

"*Peak Flow Rate* " means the maximum rate of sewage flow for which the plant or process unit was designed;

"*Previous Works* " means those portions of the sewage works previously constructed and approved under a certificate of approval;

"*Proposed Works* " means the sewage works described in the *Owner* 's application, this *Certificate* and in the supporting documentation referred to herein, to the extent approved by this *Certificate* ;

"*Rated Capacity* " means the *Average Daily Flow* for which the *Works* are approved to handle;

"*Regional Director* " means the Regional Director of the Southwestern Region of the Ministry;

"*Substantial Completion* " has the same meaning as "*substantial performance* " in the Construction Lien Act; and

"*Works* " means the sewage works described in the *Owner* 's application, this *Certificate* and in the supporting documentation referred to herein, to the extent approved by this *Certificate* and includes both *Previous Works* and *Proposed Works* .

You are hereby notified that this 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 *Certificate* and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- (2) Except as otherwise provided by these Conditions, the *Owner* shall design, build, install, operate and maintain the *Works* in accordance with the description given in this *Certificate* , the application for approval of the works and the submitted supporting documents and plans and specifications as listed in this *Certificate* .
- (3) Where there is a conflict between a provision of any submitted document referred to in this *Certificate* and the Conditions of this *Certificate* , the Conditions in this *Certificate* shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.
- (4) Where there is a conflict between the listed submitted documents, 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 requirements of this *Certificate* are severable. If any requirement of this *Certificate* , or the application of any requirement of this *Certificate* to any circumstance, is held invalid or unenforceable, the application of such requirement to other circumstances and the remainder of this certificate shall not be affected thereby.

2. CHANGE OF OWNER

- (1) The *Owner* shall notify the *District Manager* and the *Director* , in writing, of any of the following changes within 30 days of the change occurring:
 - (a) change of *Owner* ;
 - (b) change of address of the *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.B17 shall be included in the notification to the *District Manager* ;
- (d) change of name of the corporation where the *Owner* is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Informations Act, R.S.O. 1990, c. C39 shall be included in the notification to the *District Manager* ;
- (2) In the event of any change in ownership of the *Works* , other than a change to a successor municipality, the *Owner* shall notify in writing the succeeding owner of the existence of this *Certificate* , and a copy of such notice shall be forwarded to the *District Manager* and the *Director* .

3. EFFLUENT OBJECTIVES

- (1) The *Owner* shall use best efforts to design, construct and operate the *Works* with the objective that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the *Works* .

Table 1 - Effluent Objectives	
Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)
<i>CBOD5</i>	25.0
Total Suspended Solids	25.0
Total Phosphorus	0.5
Free Ammonia (during fall discharge period starting after October 15)	3.0
Free Ammonia (during spring discharge period ending May 1)	6.0
Hydrogen Sulphide	Absent

- (2) The *Owner* shall use best efforts to:
 - (a) operate the works within the *Rated Capacity* of the *Works* ;
 - (b) 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 or sheen or foam or discolouration on the receiving waters.
- (3) The *Owner* shall include in all reports submitted in accordance with Condition No. 7 a summary of the efforts made and results achieved under this Condition.

4. EFFLUENT LIMITS

- (1) The *Works* shall be operated such that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the *Work* s.

Table 2 - Effluent Limits		
Effluent Parameter	Average Maximum Concentration (milligrams per litre unless otherwise indicated)	Single Sample Maximum Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2	Column 3
<i>CBOD5</i>	30.0	45.0
Total Suspended Solids	30.0	45.0
Total Phosphorus	1.0	1.5
Free Ammonia (during fall discharge period starting after October 15)	10.0	15.0
Free Ammonia (during spring discharge period ending May 1)	15.0	20.0
Hydrogen Sulphide	20 ppb	20 ppb

- (2) The concentration limits are set out in Subsection (1) shall only apply until the volume of sewage being received at the sewage works does not exceed $690 \text{ m}^3/\text{d}$ ***based on the arithmetic mean of 305 consecutive days flow.***
- (3) The effluent volume from the works shall be adjusted according to the stream flow available in the South Pine River.
- (4) The unionized ammonia concentration in the South Pine River after mixing with the discharge should not exceed 0.02 mg/L in accordance with the Ministry's Water Management Goals, Policies and Objectives. In order to comply with this criteria, the effluent discharge rate shall be controlled by the operating authority by varying the discharge rate in relation to stream flow in the South Pine River, considering such factors as pH and temperature of the receiving stream.

(5) For the purposes of determining compliance with and enforcing subsection (1):

- (a) Exceedance of the concentration for *CBOD5* and Suspended Solids is deemed to have occurred when the arithmetic mean of analytical results of weekly grab samples of the final effluent collected during the duration of each seasonal discharge OR single sample is greater than the corresponding concentrations set out in Column 2 and Column 3 respectively of Subsection (1).
- (b) Exceedance of the concentration for Total Phosphorus is deemed to have occurred when the arithmetic mean of analytical results of weekly grab samples of the final effluent collected during the duration of each seasonal discharge OR single sample are greater than the corresponding concentrations set out in Column 2 and Column 3 respectively of Subsection (1).
- (c) Exceedance of the concentration for Free Ammonia is deemed to have occurred when the arithmetic mean of analytical results of weekly grab samples of the final effluent collected during the duration of each seasonal discharge OR a single sample is greater than the corresponding concentrations set out in Column 2 and Column 3 respectively of Subsection (1).
- (d) Exceedance of the concentration for Hydrogen Sulphide is deemed to have occurred when a positive result from any single sample is greater than the corresponding concentrations set out in Column 2 and Column 3 respectively of Subsection (1).

(10) Paragraph ((a), (b), (c), and (d)) of subsection (5) shall apply upon the issuance of this certificate.

(11) Only those monitoring results collected during the corresponding time period shall be used in calculating the Average Maximum Concentration and Single Sample Maximum Concentration for this *Certificate* .

5. OPERATION AND MAINTENANCE

- (1) The *Owner* shall exercise due diligence in ensuring that, at all times, the *Works* and the related equipment and appurtenances used to achieve compliance with this *Certificate* are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, including training in all procedures and other requirements of this *Certificate* and the *Act* and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the *Works* .
- (2) The *Owner* shall prepare an operations manual that includes, but not necessarily 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 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) 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 *District Manager* ; and
 - (f) procedures for receiving, responding and recording public complaints, including recording any followup actions taken.
- (3) The *Owner* shall maintain the operations manual current and retain a copy at the location of 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 provide for the overall operation of the *Works* with an operator who holds a licence that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 129/04.

6. EFFLUENT MONITORING AND RECORDING

The *Owner* shall, upon commencement of operation of the *Works* , carry out the following monitoring program:

- (1) All samples and measurements taken for the purposes of this *Certificate* 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) For the purposes of this condition, the following definitions apply:
 - (a) Daily means once each day;
 - (b) Weekly means once each week;
 - (c) Bi-weekly means once every two weeks;
 - (d) Monthly means once every month;
 - (e) Bi-monthly means once every two months.
- (3) Samples shall be collected at the following sampling points, at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 3a - Raw Sewage Monitoring - (Sample Point)	
Frequency	Bi-weekly
Sample Type	Grab
Parameters	CBOD5 , Total Suspended Solids, Total Kjeldhal Nitrogen, Total Phosphorus

Table 3b - Raw Sewage Monitoring - (Sample Point)	
Frequency	Bi-monthly
Sample Type	Composite
Parameters	<i>CBOD5</i> , Total Suspended Solids, Total Kjeldhal Nitrogen, Total Phosphorus

Table 3c - Effluent Monitoring - (Sample Point)	
Frequency	Weekly
Sample Type	Grab
Parameters	<i>CBOD5</i> , Total Suspended Solids, Total (Ammonia + Ammonium) Nitrogen, Total Kjeldhal Nitrogen, Nitrite, Nitrate, Total Phosphorus, pH, Temperature, Hydrogen Sulphide

Table 3d - Effluent Monitoring - (Sample Point)	
Frequency	Once during each discharge period
Sample Type	Composite
Parameters	<i>CBOD5</i> , Total Suspended Solids, Total (Ammonia + Ammonium) Nitrogen, Total Kjeldhal Nitrogen, Nitrite, Nitrate, Total Phosphorus, pH, Temperature

- (4) 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 Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended from time to time by more recently published editions;
 - (b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;
 - (c) the publication "Standard Methods for the Examination of Water and Wastewater" (20th edition), as amended from time to time by more recently published editions;
 - (d) the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (July 1990) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Daphnia magna" (July 1990), as amended from time to time by more recently published editions; and,
 - (e) for any parameters not mentioned in the documents referenced in (a) and (b), the written approval of the *District Manager* shall be obtained prior to sampling.
- (5) 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).

- (6) The measurement frequencies specified in subsection (2) in respect to any parameter are minimum requirements which may, after 24 months of monitoring in accordance with this Condition, be modified by the *District Manager* in writing from time to time.
- (7) The *Owner* shall maintain a continuous flow measuring device, to measure the flowrate of the raw sewage to the *Works* with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flowrate for the entire design range of the flow measuring device, and record the flowrate. The *Owner* shall measure or estimate and record the daily quantities of effluent from the *Works* during drawdown for seasonal discharge.
- (8) 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 *Certificate*.

7. REPORTING

- (1) The *Owner* shall report to the *District Manager* or designate, any exceedence of any parameter specified in Condition 4 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 Environmental Protection Act, the *Owner* shall, within 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, within 90 days following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the *Works* and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:
 - (a) a tabulation, summary and interpretation of all monitoring data including type of sample and a comparison to the effluent limits outlined in Condition 4, including an overview of the success and adequacy of the *Works* ;
 - (b) a tabulation of daily flow rates and volumes;

- (c) a tabulation of stream flow and effluent discharge rates;
- (d) a description of any operating problems encountered and corrective actions taken;
- (e) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the *Works* ;
- (f) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (g) a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- (h) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 3;
- (i) a tabulation of the volume of sludge generated in the reporting period, 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;
- (j) a summary of any complaints received during the reporting period and any steps taken to address the complaints; and
- (k) a summary of all *By-pass* , spill or abnormal discharge events.

8. REVOCATION OF EXISTING APPROVALS

- 8.1 The descriptions of the approved *Works* and conditions of approval in this *Certificate* apply in place of all existing descriptions and conditions in the certificates of approval under the Ontario Water Resources Act for sewage works which are part of the works approved by this *Certificate* .
- 8.2 Notwithstanding Condition 8.1 above, the original applications for approval, including design calculations, engineering drawings and reports prepared in support of the existing certificate(s) of approval whose descriptions of the approved works and conditions are now replaced pursuant to Condition 8.1 above, shall form part of this *Certificate* .
- 8.3 Where an existing certificate of approval referred to in Condition 8.1 above applies to works in addition to the *Works* approved by this *Certificate* , it shall continue to apply to those additional works.

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 *Certificate* and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the Owners their responsibility to notify any person they authorized to carry out work pursuant to this *Certificate* the existence of this *Certificate* .

2. Condition 2 is included to ensure that the *Ministry* records are kept accurate and current with respect to the approved works and to ensure that subsequent owners of the *Works* are made aware of the *Certificate* and continue to operate the *Works* in compliance with it.
3. Condition 3 is imposed to establish non-enforceable effluent quality objectives which the *Owner* is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 4 are exceeded.
4. Condition 4 is imposed to ensure that the effluent discharged from the *Works* to the South Pine River meets the *Ministry* 's effluent quality requirements thus minimizing environmental impact on the receiver and to protect water quality, fish and other aquatic life in the receiving water body.
5. Condition 5 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 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 work.
6. Condition 6 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 *Certificate* and that the *Works* does not cause any impairment to the receiving watercourse.
7. Condition 7 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 *Certificate*, so that the *Ministry* can work with the *Owner* in resolving any problems in a timely manner.
8. Conditions 8.1 through 8.3 are included to stipulate that this certificate replaces all previous approvals for the works being the subject of this certificate, and that the existing approvals remain in force for the purpose of any works which are not subject to this certificate.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 3-0724-88-006 issued on August 26, 1988, Letter of Concurrence dated November 9, 1990 and Amendment to Certificate of Approval No. 3-0724-88-006 issued on September 1, 1992.

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:

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

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

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

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
2300 Yonge St., 12th Floor
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Director
Section 53, *Ontario Water Resources Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted sewage works are approved under Section 53 of the Ontario Water Resources Act.

DATED AT TORONTO this 13th day of July, 2022

Director
Section 53, *Ontario Water Resources Act*

JC/
c: District Manager, MOE Barrie District Office
MOE Owen Sound Area Office
Clerk, Township of Huron-Kinloss
Steve Burns, P.Eng., B.M. Ross and Associates Limited