



Ministry
of the
Environment

Ministère
de
l'Environnement

AMENDED CERTIFICATE OF APPROVAL
MUNICIPAL AND PRIVATE SEWAGE WORKS
NUMBER 6629-6BVMS9

Ontario

The Corporation of the Municipality of West Nipissing
225 Holditch Street
Sturgeon Falls, Ontario
P2B 1T1

Site Location: Verner Sewage Lagoon
Lot 8, Concession 3
West Nipissing Municipality, District of Nipissing

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

establishment of a sanitary sewage treatment system with a *Rated Capacity* of 477 cubic metres per day to serve the Community of Verner, Municipality of West Nipissing, consisting of the following:

SEWAGE WORKS APPROVED IN 1974

Forcemains

STREET: FROM: TO:

Rue D'Youville St. Pumping Station #2 (100 mm diameter) Approx. 79 m N. to Pumping Station #1
Rue D'Youville St. Pumping Station #1 (250 mm diameter) Public Road
Public Road Rue D'Youville St. Approx. 668 m E. of Rue D'Youville St.
Easement Public Road Lagoon System Site

Pumping Station #1

- two (2) identical submersible sewage pumps each with a rated capacity of 25.2 litres per second at 14.6 metres Total Dynamic Head (TDH), located on the east side of Rue D'Youville Street approximately 137 metres South of the intersection of Gingras Avenue and Rue D'Youville, discharging via a 1,775 metres long and 250 mm diameter forcemain to the influent flow splitting chamber at the lagoon system and equipped with an emergency overflow to the Veuve River;

Pumping Station #2

- two (2) identical submersible sewage pumps (one on standby) each having a capacity of 543 cubic metres per day at 5.8 metres TDH, located on the east side of Rue D'Youville Street approximately 207 metres South of the intersection of Gingras Avenue and Rue D'Youville, discharging via a 70 metres long and 100 mm diameter forcemain to Pumping Station #1, and equipped with an emergency overflow to the Veuve River;

Facultative Lagoon System

- two (2) equal size sewage lagoon ponds with a total holding capacity of 101,717 cubic metres and a total surface area of 5.67 hectares located on Lot 8, Concession 3, Township of Caldwell, discharging semi-annually to the Veuve River via a drainage ditch;
- provision for batch chemical addition to the two ponds for phosphorus removal;

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 final plans and specifications prepared by Knox, Martin, Kretch Limited, Consulting Engineers in 1972 and final engineering drawings by Knox, Martin, Kretch Limited, Consulting Engineers dated February 1974.

PROPOSED MEASURES

Pumping Station #1

- one (1) flow meter for measurement of the combined raw sewage flow rate from Pumping Station #1 and Pumping Station #2;

all in accordance with the final plans and specifications prepared by Earth Tech (Canada) Inc. as described in the report "Verner Sewage Lagoon Certificate of Approval Application, Section 53 OWRA", dated February 2004.

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;

"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;

"By-pass" means any discharge from the *Works* that does not undergo any treatment or undergoes only partial treatment before it is discharged to the environment;

"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 for the Timmins/North Bay District Office of the *Ministry*;

"E. Coli" refers to the thermally tolerant forms of *Escherichia* that can survive at 44.5 degrees Celsius;

"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;

"Owner" means the Corporation of the Municipality of West Nipissing and includes its successors and assignees;

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

"Regional Director" means the Regional Director of the Northern Region of the *Ministry*; 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*.

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*; and
 - (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*;

3. BY-PASSES

- (1) Any *By-pass* of sewage from any portion of the *Works* is prohibited, except where:

- (a) it is necessary to avoid loss of life, personal injury, danger to public health or severe property damage;
- (b) the *District Manager* agrees that it is necessary for the purpose of carrying out essential maintenance and the *District Manager* has given prior written acknowledgment of the *by-pass*; or
- (c) the *Regional Director* has given prior written acknowledgment of the *By-pass*.

(2) The *Owner* shall collect at least one (1) grab sample of the *By-pass* and have it analyzed for the parameters outlined in Condition 5 using the protocols in Condition 8.

(3) The *Owner* shall maintain a logbook of all *By-pass* events which shall include, at a minimum, the time, location, duration, quantity of *By-pass*, the authority for *By-pass* pursuant to subsection (1), and the reasons for the occurrence.

4. 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>	20.0
Total Suspended Solids	20.0
Total Phosphorus	1.0

(2) The *Owner* shall use best efforts to:

- (a) maintain the pH of the effluent from the *Works* within the range of 6.5 to 8.0, inclusive, at all times;
- (b) operate the works within the *Rated Capacity* of the *Works* (477 cubic metres per day);
- (c) 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 discoloration on the receiving waters.

(3) The *Owner* shall include in all reports submitted in accordance with Conditions 8 and 9, a summary of the efforts made and results achieved under this Condition.

5. EFFLUENT LIMITS

(1) The *Owner* shall 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 2 - Effluent Limits	
Effluent Parameter	Average Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2
CBOD5	25.0
Total Suspended Solids	25.0
Total Phosphorus	1.0
pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times	

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

- (a) The *Annual Average Concentration* of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1); and
- (b) The pH of the effluent shall be maintained within the limits outlined in subsection (1), at all times.

(3) Paragraphs (a) and (b) of subsection (2) shall apply upon issuance of this certificate.

6. 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 and maintain an operations manual that includes, but is 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.

7. SPECIAL OPERATIONS - (SEASONAL DISCHARGE)

(1) The *Owner* shall operate the *Works* such that discharge is conducted on a semi-annual discharge basis with the effluent being discharged in the spring and the fall as follows:

Spring: discharge commencing after the liquid surface in the lagoon has become free of ice cover, continuing for not less than 15 days, and terminating not later than May 31; and

Fall: discharge commencing not earlier than October 1, continuing for not less than 15 days, and terminating not later than November 30.

8. 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) Monthly means once every month.

(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 3 - Raw Sewage Monitoring - (Inlet Works)	
Frequency	Monthly
Sample Type	Grab
Parameters	CBOD5, Total Suspended Solids, Total Phosphorus

Table 4 - Effluent Monitoring - (Effluent Outlet Works)		
Parameters	Sample Type	Frequency
CBOD5	Grab	6 per discharge season*
Total Suspended Solids	Grab	6 per discharge season*
Total Phosphorus	Grab	6 per discharge season*
Total Ammonia (Ammonia + Ammonium) Nitrogen	Grab	6 per discharge season*
<i>E. Coli</i>	Grab	6 per discharge season*
pH	Grab	6 per discharge season*
Temperature	Grab	6 per discharge season*

* Samples of effluent discharge shall be collected at least three (3) times from the outlet structure of each pond corresponding to the start of discharge, at about the 50 percent level of pond drawdown, and on the final day of discharge for the particular pond being drawn down and sampled, for a total of at least six (6) samples of effluent during the seasonal discharge period.

(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;

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- (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; and
- (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.

(5) The measurement frequencies specified in subsections (2) and (3) in respect to any parameter are minimum requirements which may be modified by the *District Manager* in writing from time to time.

(6) The *Owner* shall install and maintain a continuous flow measuring device, to measure the flow rate of raw sewage into the *Works* with an accuracy to within plus or minus 15 per cent (+/- 15 percent) of the actual flow rate for the entire design range of the flow measuring device, and record the flow rate at a daily frequency.

(7) The *Owner* shall determine the average discharge rate of effluent from each pond during the seasonal discharge period and record the average daily flow rate and the dates of the discharge period for each pond at the end of each seasonal discharge period.

(8) The *Owner* shall retain for a minimum of three (3) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this *Certificate*.

9. REPORTING

(1) Ten (10) days prior to the date of a planned *By-pass* being conducted pursuant to Condition 3 the *Owner* shall notify the *District Manager* (in writing) of the pending start date, and as soon as possible for an unplanned *By-pass*, in addition to an assessment of the potential adverse effects on the environment and the duration of the *By-pass*.

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

(3) In addition to the obligations under Part X of the Environmental Protection Act, 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.

(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, and submit to the *District Manager*, a performance report, on an annual basis, within ninety (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 summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 5, including an overview of the success and adequacy of the *Works*;

- (b) a description of any operating problems encountered and corrective actions taken;

- (c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the *Works*;

- (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;

- (f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 4;

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- (g) 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;
- (h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (i) a summary of all *By-pass*, spill or abnormal discharge events; and
- (j) 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 *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 included to indicate that by-passes of untreated sewage to the receiving watercourse is prohibited, save in certain limited circumstances where the failure to *By-pass* could result in greater injury to the public interest than the *By-pass* itself where a *By-pass* will not violate the approved effluent requirements, or where the *By-pass* can be limited or otherwise mitigated by handling it in accordance with an approved contingency plan. 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 *By-pass* events.
4. Condition 4 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 5 are exceeded.
5. Condition 5 is imposed to ensure that the effluent discharged from the *Works* to the Veuve 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.
6. Condition 6 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.
7. Condition 7 is included to ensure that the treated effluent is discharged to the receiver during periods and at rates that minimizes the environmental impact on the receiver.
8. Condition 8 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 effluent limits specified in the *Certificate* and that the *Works* does not cause any impairment to the receiving watercourse.
9. Condition 9 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.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 4135-5ZMHZT issued on July 27, 2004.

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 29th day of April, 2005

Mohamed Dhalla, P.Eng.
Director
Section 53, *Ontario Water Resources Act*

AS/
c: District Manager, MOE North Bay
David Caverson, Earth Tech (Canada) Inc.
Dan Atkinson, VP of Operations, Ontario Clean Water Agency
Water Standards Section, Standards Development Branch, MOE