Ontario

Ministry of the Environment **Ministère de l'Environnement**

AMENDED CERTIFICATE OF APPROVAL
MUNICIPAL AND PRIVATE SEWAGE WORKS
NUMBER 0024-6JWL2R
Issue Date: December 21, 2005

The Corporation of the Municipality of Huron East
72 Main Street, PO Box 610
Seaforth, Ontario
N0K 1W0

Site Location: Vanastra Water Pollution Control Plant
76981 London Road (Highway No. 4)
Municipality of Bluewater, County of Huron

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

an existing conventional activated sludge wastewater treatment plant serving the community of Vanastra, in the Municipality of Huron East, with the plant located in the adjacent Municipality of Bluewater on part Lot 30, Concession I of former Stanley Township, with a *Rated Capacity* of 1,405 m^3/day, and described as follows:

SEWAGE WORKS APPROVED AS PER APPLICATION DATED JULY 7, 2005:

Flow Equalization Storage Tank

- one (1) 0.8 m long broad crested equalization overflow weir installed at 271.8 masl in the existing inlet headwork to direct excess sewage flow through a 375 mm diameter sewer into a sewage pumping station described below;

- one (1) 3.045 m diameter x 4.2 m deep precast concrete wet well sewage pumping station equipped with two (2) submersible sewage pumps each with design capacity of 66.9 L/sec at 9.7 m TDH discharging through a 200 mm diameter forcemain into an equalization storage tank described below;

- one (1) concrete flow equalization storage tank with approximate outside dimensions of 37.5 m long X 28.2 m wide X 5.0 m high, designed to provide a maximum storage capacity of 4,242 m^3, equipped with 200 mm diameter discharge pipe, sluice gate valve with modulating actuator, and an overflow chamber with a 200 mm diameter overflow discharge pipe, discharging back into the inlet headwork;

Effluent Disinfection

- one (1) 200 L capacity sodium hypochlorite storage tank equipped with spill containment structure and one (1) 3.4 L/hr capacity chemical feed pump equipped with flow paced hypochlorite dosing control system, located in the upper floor of the control building;

Standby Power

- one (1) 100 kW standby diesel generator equipped with sound attenuating enclosure located beside the sludge digestion tank;

- one (1) diesel fuel storage tank with 24 hour fuel supply storage capacity;

- including all controls and appurtenances.

all in accordance with the Application for Approval of Municipal and Private Sewage Works submitted by the Municipality of Huron East dated July 7, 2005, and design specifications and drawings prepared by B. M. Ross and Associates Limited, Goderich, Ontario, and the following documents:

1. "Municipality of Huron East, Preliminary Design Calculations, Equalization Storage Tank and Related Works" dated July 2004, prepared by B. M. Ross and Associates Limited.

2. "Municipality of Huron East, Municipal Class Environmental Assessment for Improvements to the Vanastra Sewage Treatment Plant - Project File" dated July 21, 2005, prepared by B. M. Ross and Associates Limited.

3. "Municipality of Huron East, Evaluation of Sewage Bypass Events at the Vanastra Sewage Treatment Plant - Draft" dated May 21, 2002, prepared by B. M. Ross and Associates Limited.

SEWAGE WORKS APPROVED ON OR BEFORE APRIL 13, 2005:

Plant Equipment and Administration Building:

a masonry and frame building, measuring approximately 8.20 m by 8.24 m, heated and ventilated, housing the below described sewage treatment equipment and the associated office, staff and laboratory facilities, including:

- two (2) positive displacement type air blowers, with one equipped with a 15 kW (20 hp), 1160 RPM motor having a capacity of 167.2 L/sec, and the second with a 22 kW (30 hp), 1800 RPM electric motor having a capacity of 305.6 L/sec;

- one (1) 3.75 kW (5 hp) 250 mm diameter piston pump, with all necessary piping and valves for the pumping of primary sludge, primary scum, secondary sludge and for sludge loading purposes;

- two (2) vertical axis, long shaft centrifugal primary effluent sewage pumps rated at 36.3 L/sec (480 Igpm) at 3.05 m (10') Total Dynamic Head (TDH), and each equipped with a 2.25 kW (3 hp)

motor;

- a primary effluent and return activated sludge pumping station wet well, measuring approximately 3.05 m by 2.44 m;

- one (1) gas chlorination system, located in a separate isolated room with access from the exterior only, complete with a ventilation fan and chlorine alarm, and equipped with an Advance Gas Chlorinator;

- all related electrical, monitoring and control equipment for plant operation.

Inlet Works:

- a plant influent channel system consisting of a 450 mm wide 1,825 mm deep plant inlet channel, equipped with a manually raked bar screen with 38 mm opening;

- one (1) comminutor in the inlet channel to primary works, complete with a 1.5 kW motor;

- bypass piping, including overflow weir installed in the inlet structure, consisting of 375 mm diameter overflow pipe;

- bypass flow monitoring station located in a maintenance hole southeast of administration building and consisting of a V-notch weir and ultrasonic flow measuring device.

Primary Treatment Facilities:

- one (1) 9.14 m diameter by 2.44 m deep circular primary clarifier with a volume of 160.3 m^3, complete with scum and sludge withdrawal;

- one (1) clarifier mechanism and drive for scum and sludge collection and removal, including a 0.37 k W , 1760 RPM drive motor and reduction gearing;

- associated inlet and outlet piping for raw and settled wastewater, raw and waste activated sludge and scum removal.

Aeration Basins:

- two (2) plug-flow aeration basins, with each basin consisting of two (2) cells each measuring 3.05 m by 18.29 m with an operating depth of 3.05 m for a total aeration volume in each basin of approximately 340.3 m^3;

- a spiral roll aeration system in each basin consisting of air headers, diffuser air drops, twenty one (21) coarse bubble diffuser assemblies arranged in a tapered aeration configuration in each basin;

- associated inlet piping for combined primary effluent and return activated sludge supply to the

basins, and activated sludge outlet piping to the secondary clarifiers.

Secondary Clarifiers:

- two (2) centre-feed square clarifiers, each dedicated to an aeration cell, measuring 6.41 m by 6.41 m with a maximum side water depth of 2.97 m for a total volume of 244.3 m^3, one sludge draw-off mechanism in each clarifier with a 0.38 kW, 1750 RPM motor and speed reducer to sludge collector mechanisms;

- associated inlet piping from the aeration basins and final effluent overflow and sludge draw-off piping.

Phosphorus Removal System:

- one (1) 9,000 L insulated and heat traced alum storage tank in a concrete containment crib, complete with simplex sump pump system, one (1) dual head alum metering pump with a maximum discharge pressure of 150 psi, complete with a 0.18 kW, 1725 RPM electric motor, and associated insulated and heat traced alum feed lines to addition points at the aeration basin effluent discharge point.

Plant Effluent Monitoring Station and Outfall Sewer:

- one (1) 3.84 m long Parshall flume, with a 0.23 m throat, and 0.575 m approach and discharge channels, with outlet to the 375 rnm diameter effluent piping, one ultrasonic flow depth measuring device and associated control and data recording equipment in the administration building, a 375 mm diameter plant effluent outfall sewer extending from the flow measuring Parshall flume and disinfectant addition point to Grant Creek.

Sludge Digestion and Storage Facilities:

- one(l) single stage anaerobic digester measuring 10.36 m in diameter and 6.09 m in depth (at the exterior wall), with a volume of 514 m^3, complete with pipe connections to the sludge pumping station in the administration building for sludge transfer and loading purposes;

- presently used for sludge and scum holding, with periodic removal of the tank contents to another facility owned by the Municipality for stabilization and final disposal.

all in accordance with the Application for Approval of Municipal and Private Sewage Works submitted by the Municipality of Huron East dated October 28, 2002, works description prepared by R. J. Burnside & Associates, Collingwood, Ontario, and Drawing No. D-1623 Job No. 305, Sheet 1 prepared by James F. MacLaren & Associates, dated July 31, 1951.

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 before it is discharged to the environment;

"*BOD5* " means five day carbonaceous 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 Sarnia District Office of the Ministry;

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

"*Geometric Mean Density* " is the nth root of the product of multiplication of the results of n number of samples over the period specified;

"*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 Municipality of Huron East and includes its successors and assignees;

"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;

"*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 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* , 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. AS-BUILT DRAWINGS OF THE WORKS

(1) Within one year of the issuance date of this *Certificate* , a set of as-built drawings showing the existing *Works* "as constructed" shall be prepared. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the *Works* for the operational life of the *Works* .

4. 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 6 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) The *Owner* shall, in the event of a *By-pass* event pursuant to subsection (1), disinfect the by-passed effluent prior to it reaching the receiver such that the receiver is not negatively impacted.

5. 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)
BOD5	15.0
Total Suspended Solids	15.0
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 6.0 to 8.5, inclusive, at all times;

(b) operate the works within the *Rated Capacity* of the *Works* ;

(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 discolouration on the receiving waters.

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

6. 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 *Work* s.

Table 2 - Effluent Limits		
Effluent Parameter	**Monthly Average Concentration** (milligrams per litre unless otherwise indicated)	**Annual Average Concentration** (milligrams per litre unless otherwise indicated)
Column 1	Column 2	Column 3
BOD_5	-	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 *Monthly 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);

(b) 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 3 of subsection (1).

(c) The pH of the effluent shall be maintained within the limits outlined in subsection (1), at all times.

(3) Notwithstanding subsection (1), the *Owner* shall operate and maintain the *Works* such that the effluent is continuously disinfected so that the monthly *Geometric Mean Density* of *E. Coli* does not exceed 200 organisms per 100 millilitres of effluent discharged from the *works* .

(4) Paragraph (a), (b), and (c) of subsection (2) shall apply upon the issuance date of this *Certificate.*

(5) The effluent limit set out in subsection (3) shall apply upon the issuance date of this *Certificate.*

(6) Only those monitoring results collected during the corresponding time period shall be used in calculating the *Annual Average Concentration and Monthly Average Concentration* for this *Certificate.*

7. 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 within six (6) months of the issuance date of this *Certificate* , 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 follow up 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 435/93.

8. MONITORING AND RECORDING

The *Owner* shall 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) 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 Influent Monitoring	
Frequency	Monthly
Sample Type	Grab
Parameters	BOD_5 , Total Suspended Solids, Total Phosphorus, Total Kjeldahl Nitrogen

Table 4 - Effluent Monitoring		
Parameters	**Sample Type**	**Frequency**
BOD5	Composite	Monthly
Total Suspended Solids	Composite	Monthly
Total Phosphorus	Composite	Weekly
Total Ammonia Nitrogen	Composite	Monthly
E. Coli	Grab	Weekly
pH	Grab	Weekly
Residual Chlorine	Grab	Weekly

(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) 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 *Owner* shall install and maintain (a) continuous flow measuring device(s), to measure the flowrate of the effluent from 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 at a daily frequency.

(6) The *Owner* shall install and maintain (a) continuous flow measuring device(s), 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 raw sewage flowrate at a daily frequency.

(7) The *Owner* shall measure the volume of raw sewage diverted from the inlet works to the flow equalization storage tank along with the time and date of the occurrence;

(8) The *Owner* shall install a rain gauge and record daily rainfall depth;

(9) 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 4 and as soon as possible for an unplanned *By-pass* , the *Owner* shall notify the *District Manager* (in writing) of the pending start date, 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 exceedance of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.

(3) 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.

(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 upon request 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 issuance date of this *Certificate* 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 6, including an overview of the success and adequacy of the *Works* ;

(b) a summary and interpretation of all raw sewage flow monitoring data, assessment of the quantity of infiltration/inflow occurring during recorded rainfall events and its impact of the performance of the *Works* and occurrence of bypass events;

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

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

(e) a summary of any effluent quality assurance or control measures undertaken in the reporting period;

(f) a summary of the calibration and maintenance carried out on all effluent monitoring equipment; and

(g) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5.

(h) 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;

(i) a summary of any complaints received during the reporting period and any steps taken to address the complaints;

(j) a summary of all *By-pass* , spill or abnormal discharge events; and

(k) 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 ensure that the *Works* are constructed in accordance with the approval and that record drawings of the *Works* "as constructed" are maintained for future references.

4. Condition 4 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.

5. Condition 5 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 6 are exceeded..

6. Condition 6 is imposed to ensure that the effluent discharged from the *Works* to the Grant Creek 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.

7. Condition 7 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.

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. 1664-6BDPCL issued on April 13, 2005.

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 21st day of December, 2005

Zafar Bhatti

Zafar Bhatti, P.Eng.
Director
Section 53, *Ontario Water Resources Act*

SH/
c: District Manager, MOE Sarnia
Manager, Water Standards, Standards Development Branch, MOE
Dale Erb, P. Eng., B.M. Ross and Associates Limited