Ontario

Ministry of the Environment
Ministère de l'Environnement

AMENDED CERTIFICATE OF APPROVAL
MUNICIPAL AND PRIVATE SEWAGE WORKS
NUMBER 5853-7R6HD4
Issue Date: April 22, 2009

The Corporation of the Township of St. Clair
1155 Emily St
Rural Route, No. 1
Mooretown, Ontario
N0N 1M0

Site Location: Corunna Wastewater Treatment Plant
362 Beresford St
St. Clair Township, County of Lambton
N0N 1G0

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

replacement of the existing Corunna Water Pollution Control Plant (WPCP), located at the above site location, with a new sanitary pumping station having a firm capacity of 210 L/s to convey sewage from the community of Corunna to Courtright Sewage Treatment Plant, consisting of the following:

PROPOSED WORKS

Inlet Sewer and Chamber
One (1) inlet chamber complete with one (1) inlet gravity sewer to direct raw sewage to the mechanical screen channel or to the bypass channel.

Screenings Removal

- One (1) mechanical screen channel connecting to the inlet chamber and equipped with one (1) mechanical screen unit having a hydraulic capacity of 210 L/s and one (1) screenings conveyor/compactor; and
- One (1) bypass channel connecting to the inlet chamber.

Wet Wells
- Two (2) wet wells with one (1) 0.6 m × 0.6 m isolation gate between, each well 4.85 m long, 3.90 m wide and 5.20 m deep;
- Each wet well has one (1) 4.20 m long, 0.90 m wide and 3.53 m deep sewage distribution channel complete with one (1) channel gate and three (3) 0.45 m × 0.45 m distribution openings at the channel bottom; and
- Emergency overflow outlet in each wet well.

Dry Well
- One (1) dry well, 10 m long, 7.17 m wide, and 5.20 m deep;
- Three (3) submersible non-clog dry-pit type pumps, two duty and one standby with station firm capacity of 210 L/s, each pump rated at 105 L/s and 37.25 m total dynamic head (TDH) with a variable frequency drive;
- One (1) magnetic flow meter with isolation valve at downstream side; and
- One (1) surge relief valve on discharge header with connecting pipe from the pump discharge header to the wet well inlet chamber.

Odour Control

One (1) odour control system including a 1,750 m^3/h capacity single-stage bioreactor, foul air suction fan and ducting, irrigation and nutrients system, valves and appurtenances essential for the proper operation of the aforementioned sewage works.

Standby Power
One (1) 300 kW capacity diesel generator set complete with one (1) 2,270 L fuel tank.

Modifications to the existing Corunna WPCP

- decommission the existing facilities including preliminary treatment, extended aeration tanks, secondary clarifiers, sludge thickening and storage, chemical storage and feeding system, and standby power etc. at the existing Corunna Wastewater Treatment Plant;
- construct one (1) 1,800 mm diameter manhole and two (2) 600 mm diameter sanitary sewers to receive sewage from the existing inlet manhole and Manhole No. 3;
- construct one (1) 1,500 mm diameter manhole and two (2) 600 mm diameter sanitary sewers to convey sewage from the 1,800 mm diameter manhole and the existing 200 mm diameter sanitary sewer to the inlet chamber of the Corunna Sanitary Pumping Station;
- convert one of the existing aeration tanks to an overflow retention/treatment tank to store and treat overflows from the Corunna Sanitary Pumping Station;
- convert the existing UV disinfection facility to disinfect the overflow from the overflow retention/treatment tank before overflowing to the existing stormwater sewer (currently also used as plant effluent sewer);
- construct three (3) 400 mm diameter pipes in parallel to convey the overflow from the overflow retention/treatment tank to the existing UV disinfection facility through the existing effluent channel of the existing No. 1 Final Clarifier; and
- provide one (1) submersible non-clog pump with a capacity of 20 L/s at 7.6 m TDH and one (1) sediment flusher in the overflow retention/treatment tank for sending the overflow back to the existing inlet manhole and tank flushing.

Miscellaneous
All associated appurtenances, piping, heating and ventilation, electrical and control systems necessary to operate the *Works*.

all in accordance with the Application for Approval of Municipal and Private Sewage Works dated January 05, 2009 (received January 08, 2009) under the transmittal letter of AECOM dated January 06, 2009 along with the following supporting documents:

1. Environmental Study Report, November 2007;
2. Preliminary Design Report titled "St.Clair Township Wastewater System", October 2008;
3. Design Brief titled "Corunna Sanitary Pumping Station and Courtright Wastewater Treatment Plant", December 2008;
4. Hydraulic and Process Calculations;
5. Appendix C of the Pipe Data Form - Watermain, Storm Sewer, Sanitary Sewer and Forcemain Design - Supplement to Application for Approval for Water and Sewage Works;

all prepared by AECOM Consulting Engineers; and

6. A letter dated January 21, 2009 from John DeMars of Township of St. Clair to Matthew Chisholm of the Ontario Ministry of the Environment.

EXISTING WORKS

Inlet Sewers and Chamber

- Inlet chamber complete with slide gates and sewers to direct raw sewage to the screening and grit removal channel or the bypass pipe;
- A 300 mm diameter influent sewer to serve as bypass pipe for the new influent channel and screenings and grit removal unit;
- An inlet chamber with a bypass channel equipped with a manually cleaned bar screen; and
- A flow splitter distributing pre-treated sewage to the aeration tanks.

Screening and Grit Removal

- A screening and grit removal channel connecting to the existing influent chamber and equipped with one (1) combined mechanical screenings and grit removal unit having a hydraulic capacity of 175 L/s; and
- Comminuter in existing influent chamber to be removed.

Aeration
- Two (2) 25.9 m x 6.71 m x 4.27 m side water depth (SWD) aeration basins, having a combined total effective aeration volume of 1,344 m^3 and equipped with coarse air bubble diffuser systems; and
- Three (3) 50 hp air blowers, each having a capacity of 1,700 m^3/h at 48 kPa, including air main and distribution pipes.

Activated Sludge Pumping
- Two (2) 2.52 L/s capacity progressive cavity pumps with variable frequency drives in the discharge lines of the activated sludge storage pits and a flow meter for controlled continuous waste activated sludge feed to the rotary sludge thickener;
- One (1) activated sludge/supernatant return pit and one (1) waste activated sludge pit, with two (2) activated sludge pumps, one with constant speed and the other with variable speed drive, each having a rated capacity of 2,180 m^3/d at 7.62 m TDH; and

- One (1) activated sludge/supernatant return pit and one (1) waste activated sludge pit, with two (2) activated sludge pumps, each having a rated capacity of 3,273 m^3/d at 7.62 m TDH.

Final Clarification
- Two (2) 6.71 m diameter x 3.73 SWD final clarifiers; and
- Two (2) 24.4 m x 4.27 m x 3.81 m SWD final clarifiers.

Effluent Outfall
Outfall sewer to St. Clair River.

Sludge Storage
- Two (2) 123 m^3 capacity aerated sludge holding tank for the collection and temporary storage of waste activated sludge to feed the rotary sludge thickener; and
- One (1) 123 m^3 capacity aerated sludge holding tanks for the temporary storage of thickened sludge to be hauled off-site for disposal.

Sludge Thickening
One (1) rotary sludge thickener complete with polymer feed system and flocculation tank.

Disinfection
- One (1) 3.96 m x 0.75 m x 0.6 m retrofitted UV disinfection channel; and
- A UV disinfection system with a *peak flow rate* of 11,365 m^3/d.

Standby Power
One (1) 100 kW capacity diesel generator set complete with a 454 L capacity fuel tank.

Miscellaneous
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 following submitted supporting documents:

1. Final plans and specifications for the sewage treatment plant expansion submitted by James F. MacLaren Limited in 1977;
2. Final plans and specifications for the chlorination upgrades submitted by Wayne Campbell of the Ontario Clean Water Agency in 1995.
3. Application for Approval of Municipal and Private Sewage Works submitted by Philip Keightley of BKL Engineering dated November 15, 2003;
4. Final drawings and additional specifications submitted by Jack Yu of BKL Engineering dated May 22, 2003; and
5. Application for Amendment to Certificate of Approval submitted by Philip Keightley of BKL Engineering dated March

14, 2005, to include modifications to disinfection system and sludge thickener feed system.

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;

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

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

"*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;

"*Existing Works*" means those portions of the Corunna WPCP previously constructed and approved under a certificate of approval;

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

"*Owner*" means the Township of St. Clair and includes its successors and assignees;

"*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*;

"*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 *Existing 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 *Proposed 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 *Proposed 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. EXPIRY OF APPROVAL

The approval issued by this *Certificate* will cease to apply to those parts of the *Proposed Works* which have not been constructed within five (5) years of the date of this *Certificate*.

3. 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*.

4. UPON THE SUBSTANTIAL COMPLETION OF THE WORKS

(1) Upon the *Substantial Completion* of the *Proposed Works*, the Owner shall prepare a statement, certified by a Professional Engineer, that the works are constructed in accordance with this *Certificate*, and upon request, shall make the written statement available for inspection by Ministry personnel.

(2) Within one year of the *Substantial Completion* of the *Proposed Works*, a set of as-built drawings showing the 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*.

5. 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 8 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 (except for total plant bypass) prior to it reaching the receiver.

6. EFFLUENT LIMITS (Existing Works)

(1) Upon the issuance of this certificate, enforceable non-compliance limits presented in Table 1 shall apply to the *Existing Works*. The *Owner* shall operate and maintain the *Existing Works* such that the concentrations and waste loadings of the materials named below as effluent parameters are not exceeded in the effluent from the *Works*. These enforceable non-compliance limits shall apply until *Substantial Completion* of the *Proposed Works*and decommissioning of the *Existing Works*.

Table 1 - Effluent Limits

Effluent Parameter	**Average Concentration**(milligrams per litre) unless otherwise indicated	**Average Waste Loading** (kilograms per day) unless otherwise indicated
Column 1	Column 2	Column 3
CBOD5	25.0	113.7
Total Suspended Solids	25.0	113.7
Total Phosphorus	1.0	4.6
pH of the effluent maintained between 6.0 to 9.5, inclusive		

(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 Loading* of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum waste loading set out in Column 3 of subsection (1).

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

(3) Notwithstanding subsection (1), the *Owner* shall operate and maintain the *Existing 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*.

7. EFFLUENT MONITORING AND RECORDING (Existing Works)

The *Owner* shall carry out the following monitoring program until *Substantial Completion*of the *Proposed Works*and decommissioning of the *Existing Works*:

(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) Weekly means once each week;

(b) Quarterly means once every three months;

(3) Samples shall be collected at the following sampling points, at least at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 2 - Monitoring during a *By-pass* Event (Samples to be collected from the *By-pass* stream at the sewage treatment plant)	
Sample Type	Grab*
Parameters	*BOD5*, Total Suspended Solids, Total Phosphorus, *E. Coli*

* Discrete grab samples must be collected every two (2) hours during a by-pass event, either manually or by automatic sampler, with the first sample collected during the first hour of the event.

Table 3 - Raw Sewage Monitoring		
Parameters	**Sample Type**	**Frequency**
CBOD5	24-hr composite	Quarterly
Total Suspended Solids	24-hr composite	Quarterly
Total Phosphorus	24-hr composite	Quarterly
Total Kjeldahl Nitrogen	24-hr composite	Quarterly

Table 4 - Effluent Monitoring		
Parameters	**Sample Type**	**Frequency**
CBOD5	24-hr composite	Weekly
Total Suspended Solids	24-hr composite	Weekly
Total Phosphorus	24-hr composite	Weekly
Total Ammonia Nitrogen	24-hr composite	Weekly
E. Coli	Grab	Weekly
pH	Grab	Weekly
Temperature	Grab	Weekly

(Note: Definitions for grab and composite sample are included in one or more documents listed in Subsection (4).
24-hour composite sample means a time-composite sample and constitutes of an integrated sample made up of blending 24 hourly aliquots taken by refrigerated autosampler, which are obtained at an hourly frequency having same sample volume.)

(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;

(5) The temperature and pH of the effluent from the *Existing 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 install and maintain continuous flow measuring device(s), to measure the flowrate of the effluent from the *Existing 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.

8. MONITORING AND RECORDING (Proposed Works)

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

(1) 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 5 - Monitoring during a *By-pass* Event (Samples to be collected from the *By-pass* stream at the sewage treatment plant)	
Sample Type	Grab*
Parameters	*BOD5*, Total Suspended Solids, Total Phosphorus, *E. Coli*

* Discrete grab samples must be collected every two (2) hours during a by-pass event, either manually or by automatic sampler, with the first sample collected during the first hour of the event. (Note: Definition for grab sample is included in one or more documents below).

(2) The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

(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" (21st 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.

(3) 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. OPERATION AND MAINTENANCE (Existing Works and Proposed Works)

(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 update the operations manual within six (6) months of *Substantial Completion* of the *Proposed Works*, that includes, but not necessarily limited to, the following information:

(a) operating procedures for routine operation of the *Proposed Works*;

(b) inspection programs, including frequency of inspection, for the *Proposed 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 *Proposed Works*;

(d) procedures for the inspection and calibration of monitoring equipment of the *Proposed Works*;

(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 435/93.

10. REPORTING (Existing Works and Proposed Works)

(1) Ten (10) days prior to the date of a planned *By-pass* being conducted pursuant to Condition 5 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) 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) As long as the *Existing Works* are in operation, the *Owner* shall report to the *District Manager* or designate, any exceedence by the *Existing Works* of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedence.

(5) As long as the *Existing Works* are in operation, the *Owner* shall prepare and submit to the *District Manager,* a performance report of the *Existing Works*, on an annual basis, within ninety (90) days following the end of the period being reported upon. 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 *Existing 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 *Existing 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; and

(f) 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;

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

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

(i) 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, when the *Works* are constructed, the *Works* will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

3. Condition 3 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.

4. Condition 4 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.

5. Condition 5 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.

6. Condition 6 is imposed to ensure that prior effective decommissioning of the *Existing Works* the effluent discharged from the *Existing Works* to the receiving water body 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 enable the *Owner* to demonstrate the ability of the *Existing Works*to consistently comply with the defined effluent criteria, from the date of the issuance of this *Certificate* to the date of the effective decommissioning of the *Existing Works*.

8. Condition 8 is included to enable the *Owner* to evaluate and demonstrate the performance of the *Proposed Works*, and to ensure that the *Proposed Works* does not cause any impairment to the receiving watercourse during a *By-pass* Event .

9. Condition 9 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.

10. Condition 10 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. 8170-7PJRZK issued on March 4, 2009

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
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

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 22nd day of April, 2009

Mansoor Mahmood, P.Eng.
Director
Section 53, *Ontario Water Resources Act*

YK/
c: District Manager, MOE Sarnia
F. Don Kemp, P.Eng., AECOM Canada Ltd.