Carden Quarry
ECA 9123-5WAQUT

2021 Annual Performance Monitoring Report

Project Location:

Lots 6, 7, 8, 9, & 10, Concession 9
Carden Township, City of Kawartha Lakes, ON

Prepared for:

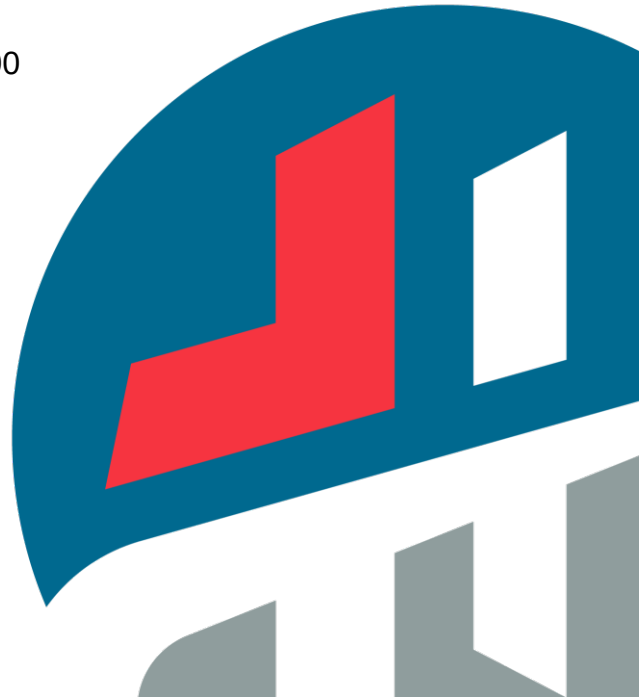
Ferma Aggregates Inc.
1 Steinway Boulevard, Unit 11
Etobicoke, ON M9W 6H9

Prepared by:

MTE Consultants
520 Bingemans Centre Drive
Kitchener, ON N2B 3X9

March 1, 2022

MTE File No.: 36123-200



Engineers, Scientists, Surveyors.

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1.0 Introduction

MTE Consultants Inc. (MTE) has been retained by Ferma Aggregates Inc. (Ferma) to prepare an annual performance monitoring report for the Carden Quarry **(Figure 1)** to satisfy Condition 7(3) of Environmental Compliance Approval (ECA) 9123-5WAQUT **(Appendix A)**. The Carden Quarry is located on Lots 6-10, Concession 9, former geographic Township of Carden, City of Kawartha Lakes, ON (hereby referred to as the 'Site').

The Site operates under Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) License Number 108268 and Ministry of the Environment, Conservation and Parks (MECP) Permit to Take Water (PTTW) Number 1238-BBLKNE. The objectives of this report are to:

- Briefly describe the Site;
- Outline ECA 9123-5WAQUT monitoring conditions;
- Present and interpret monitoring data to confirm compliance with ECA 9123-5WAQUT; and
- Describe any operational problems, corrections, and maintenance that occurred for the sewage works.

No pumping nor effluent discharge took place on-Site in 2021. As such, no samples were collected.

1.1 Site Description

Figure 2 shows the licensed area, sampling locations along the Talbot River tributary and the sewage works which consists of the quarry sump (Sump A), a temporary siltation basin and an interceptor ditch (hereby referred to as the *Works)*. The Site has been intermittently operating as a below-water-table quarry since the 2000's where limestone is excavated and stockpiled before being transported off-Site for use in a variety of construction projects.

1.1.1 Hydrogeology

Based on mapping by Chapman and Putnam (1984), the Site is located on the Carden Plain. The Carden Plain is a limestone plain lying between the Kawartha Lakes and Lake Couchiching. Groundwater flows in a southwesterly direction below the Site, towards the Talbot River and Canal Lake. Further hydrogeological details can be found in the following reports:

- Hydrotechnical Report (Ferma – Carden Quarry) for Ferma Crushed Stone Inc. (Oliver, Magione, McCalla & Associates Ltd., 1994);
- Hydrotechnical Report (Ferma – Carden Quarry) for Ferma Crushed Stone Inc. (Oliver, Mangione, McCalla & Associates Ltd., 1995);
- Environmental Impact Assessment Report for Ferma Crushed Stone Inc. (Niblett Environmental Associates Inc., 2002);
- Hydrotechnical Report Update for Ferma Aggregates Inc. (Trow Consulting Engineers Ltd., 2002);
- Ferma Carden Quarry Monitoring Data. (exp., 2011);
- Ferma Aggregates Inc. – Carden Quarry Zone of Influence Assessment (MTE Consultants Inc., 2018); and
- Zone-of-Influence Assessment - Addendum Report – Carden Quarry (MTE Consultants Inc., 2018)

1.1.2 Water Discharge

When dewatering has taken place in the past, Ferma employed proactive water management strategies to ensure adequate water quality for discharge water leaving the Site. To ensure adequate water quality during dewatering, water (groundwater, runoff, and direct precipitation) collecting in the quarry is directed to Sump A and discharged to the temporary siltation basin at a maximum pumping rate of 63 litres per second. Once in the siltation basin, any sediment in the discharge water is allowed to settle out. Water then discharges from the siltation basin through a control structure to the interceptor ditch located on the east side of the quarry. The interceptor ditch runs along the west side of Horncastle Road from the siltation basin to a tributary of the Talbot River.

2.0 ECA 9123-5WAQUT Conditions

ECA 9123-5WAQUT stipulates a number of effluent limits, monitoring and recording requirements which are outlined below in italics.

2.1 Condition 3 – Effluent Limits

3(1) The Owner shall design, construct and operate the works such that the concentration of Total Suspended Solids does not exceed 25 milligrams per litre in the effluent from the works.

3(2) For the purposes of determining compliance with and enforcing subsection (1), non-compliance with respect to the Total Suspended Solids concentration limit is deemed to have occurred when any single sample analyzed for Total Suspended Solids is greater than the corresponding maximum concentration set out in subsection (1).

2.2 Condition 4 – Effluent Visual Observations

Notwithstanding any other condition in this certificate, the Owner shall ensure that the effluent from the works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.

2.3 Condition 5 – Effluent quality Monitoring and Recording

The Owner shall, upon commencement of operation of the sewage works, carry out the following monitoring program:

5(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.

5(2) Samples shall be collected at the sump discharge into the interceptor ditch and analyzed, at the sampling frequencies and using the sample type specified for each parameter listed:

Table 1 – Effluent Monitoring	
Frequency	Once each Month During Periods of Effluent Discharge
Sample Type	Grab
Parameters	Total Suspended Solids, Oil and Grease, Total Ammonia, pH and Temperature
Frequency	Once every 3 months
Parameters	Calcium, Magnesium, Potassium, Aluminum, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium, Total Phosphorus, Silver, Zinc, Alkalinity, 5-day Biochemical Oxygen Demand, Chloride, Nitrite, Nitrate, Sulphate, Total Kjeldahl Nitrogen, Dissolved Organic Carbon, Phenols, Hardness, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene and Conductivity

5(3) The methods and protocols for sampling, analysis, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

5(3)(a) The Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (August 1994), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions.

5(3)(b) The publication "Standard Methods for the Examination of Water and Wastewater" (17th edition) as amended from time to time by more recently published editions.

5(4) The measurement frequencies and analytical parameters specified in the subsections (2) are minimum requirements which may, after 12 months of monitoring in accordance with this Conditions, be modified by the District Manager in writing from time to time.

5(5) The Owner shall measure, record and calculate the flowrate from Sump A daily, within an accuracy of plus or minus 15% of the actual flowrate.

5(6) Conductivity, temperature, and pH shall be measured and recorded in the field at the time of sampling. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

5(7) 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.

2.4 Condition 6 – Receiver Water Monitoring

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

6(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.

6(2) Samples shall be collected at the upstream and downstream monitoring locations of the Talbot River Tributary stream and analyzed, at the sampling frequencies and using the sample type specified for each parameter listed:

Table 2 – Effluent Monitoring	
Frequency	Once each Month During Periods of Effluent Discharge
Sample Type	Grab
Parameters	Total Suspended Solids, Oil and Grease, Total Ammonia, pH and Temperature
Frequency	Once every 3 months
Parameters	Calcium, Magnesium, Potassium, Aluminum, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium, Total Phosphorus, Silver, Zinc, Alkalinity, 5-day Biochemical Oxygen Demand, Chloride, Nitrite, Nitrate, Sulphate, Total Kjeldahl Nitrogen, Dissolved Organic Carbon, Phenols, Hardness, 2,4- Dinitrotoluene, 2,6-Dinitrotoluene and Conductivity

6(3) The methods and protocols for sampling, analysis, and recording shall conform to that outlined in Condition 5(3).

6(4) Sampling locations on the Talbot River Tributary stream shall be as follows:

- *Downstream: SurfaceWater Station No. 1, as shown on Figure 10 of Hydrotechnical Report, Ferma - Carden Quarry, Ferma Crushed Stone Inc., 1995 prepared by Oliver, Mangione, McCalla and Associates Limited, dated April 1995.*
- *Upstream: upstream of the confluence of the Main Branch of the Tributary to the Talbot River and the interceptor ditch, in the location of SurfaceWater Station No. 2, as shown on Figure 10 of Hydrotechnical Report, Ferma - Carden Quarry, Ferma Crushed Stone Inc., 1995 prepared by Oliver, Mangione, McCalla and Associates Limited, dated April 1995.*

6(5) Conductivity, temperature, and pH shall be measured and recorded in the field at the time of sampling. 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(6) The measurement frequencies and analytical parameters specified in the subsections (2) are minimum requirements which may, after 12 months of monitoring in accordance with this Condition, be modified by the District Manager in writing from time to time

6(7) 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.

2.5 Condition 7 – Reporting

7(1) The Owner shall report to the District Manager or designate, of any exceedance of any parameter specified in Conditions 3 and 4 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance, as defined in Condition 3(2).

7(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 spill, bypass or loss of any product, by product, intermediate product, oils, solvents, 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.

7(3) The Owner shall prepare and submit a performance report to the District Manager 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 collected pursuant to Condition 5 and a comparison to the effluent limits outlined in Conditions 3 and 4 and the Provincial Water Quality Objective and/or Ontario Drinking Water Objective for the monitored parameter, including an overview of the success and adequacy of the sewage works;

b) A description of any operating problems encountered and corrective actions taken;

c) A summary of any effluent quality assurance or control measures undertaken in the reporting period; and

d) A summary of the calibration and maintenance carried out on all effluent monitoring equipment.

3.0 Monitoring Results

3.1 Condition 5 – Effluent Quality Monitoring and Recording

5(2) No effluent discharge under the ECA took place on-Site in 2021. As such, no samples were collected.

3.2 Receiver Water Monitoring

6(2) No effluent discharge under the ECA took place on-Site in 2021. As such, no samples were collected from the upstream or downstream locations.

4.0 Reporting – Conditions

7(1) No effluent discharge under the ECA took place on-Site in 2021. As such, no samples were collected.

7(2) In 2021, the Site did not report any spills or losses.

7(3) (a) No effluent discharge under the ECA took place on-Site in 2021. As such, no samples were collected.

(b) The *Works* was not in operation in 2021.

(c) The *Works* was not in operation in 2021.

(d) The *Works* was not in operation in 2021.

5.0 Conclusion and Recommendation

Based on the above, MTE offers the following conclusions and recommendations:

- No effluent discharge under the ECA took place on-Site in 2021. As such, no samples were collected.
- MTE recommends:
  - Continuation of the monitoring program as required by ECA 9123-5WAQUT for the 2022 operating season if and when effluent discharge occurs.

6.0 Limitation

Services provided by **MTE Consultants Inc**. (MTE) were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Environmental Engineering & Consulting profession. No other warranty or representation, expressed or implied, as to the accuracy of the information, conclusions or recommendations is included or intended in this report.

This report was completed for the sole use of MTE and their client. It was completed in accordance with the Conditions outlined in ECA 9123-5WAQUT. As such, this report may not deal with all issues potentially applicable to the Site and may omit issues, which are, or may be, of interest to the reader. MTE makes no representation that the present report has dealt with any and all of the important features, including any or all important environmental features, except as provided in the introduction. All findings and conclusions presented in this report are based on Site conditions, as they existed during the time period of the investigation. This report is not intended to be exhaustive in scope or to imply a risk-free facility.

Any use which a third party makes of this report, or any reliance on, or decisions to be made based upon it, are the responsibility of such third parties. MTE accepts no responsibility for liabilities incurred by or damages, if any, suffered by any third party as a result of decisions made or actions taken, based upon this report. Others with interest in the Site should undertake their own investigations and studies to determine how or if the condition affects them or their plans.

It should be recognized that the passage of time may affect the views, conclusions and recommendations (if any) provided in this report because environmental conditions of a property can change. Should additional or new information become available, MTE recommends that it be brought to our attention in order that we may re-assess the contents of this report.

We trust this meets your current requirements. If you have any questions or comments, please do not hesitate to contact the undersigned directly at (519) 743-6500.

All of which is respectfully submitted,

MTE Consultants Inc.

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TFC:smk
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Figures

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AR1.1

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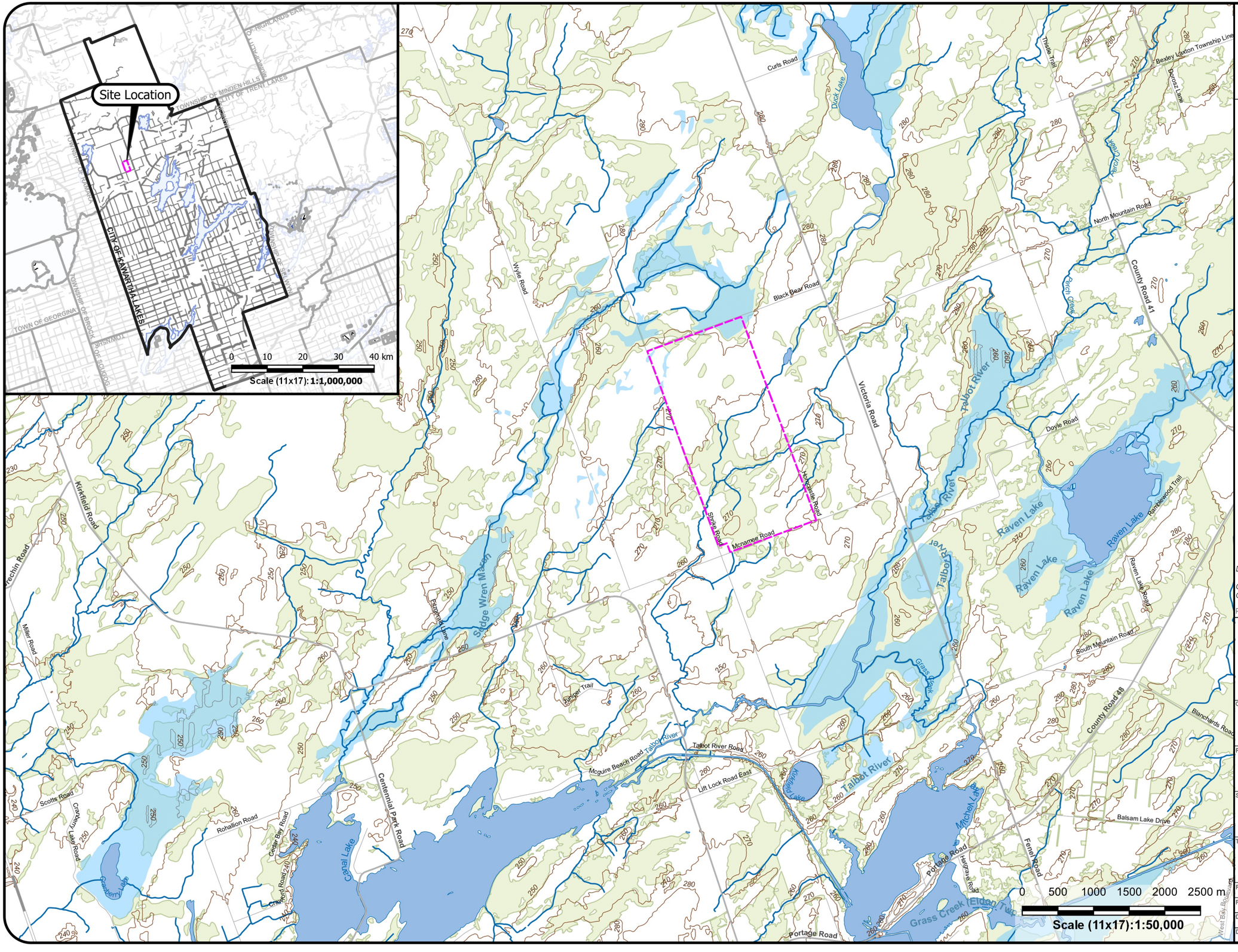

N
NORTH

N
PROJECT NORTH

Legend

Site Data
- Site Boundary

Base Map

Boundaries
- Municipal Boundary (Lower Tier)

Transportation
- Road

Surface Water
- Waterbody
- Watercourse
- Provincally Significant Wetland

Groundsurface
- Groundsurface Contour (10m Interval)

Landuse
- Wooded Area

Data Sources:

Contains information licensed under the Open Government License Ontario

Project CRS: NAD83 / UTM zone 17N

MTE
Engineers,Scientists, Surveyors
Ph. (519) 743-6500

Client: Ferma Aggregates Inc.

Project: Carden Quarry

Site: Lot 6-10, Concession 9, Carden Township, City of Kawartha Lakes, ON

Title: **Key Map**

Reviewed By	TFC		
Prepared By	JAK	Project No	36123-200
Drawn By	JAK	Figure No	1
Date	March 2022		

N
NORTH

N
PROJECT NORTH

Legend

Boundaries

- Licensed Boundary
- Quarry extraction extent (2021)

ECA Works

- Sampling Location (Talbot River Tributary)
- Interceptor Ditch
- Discharge Path
- Quarry Sump
- Siltation Basin

Data Sources:

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Aerial Imagery obtained from the Ministry of Natural Resources and Forestry Make a Topographic Map. Copyright Queens Printer for Ontario 2021

Project CRS: NAD83 / UTM zone 17N

MTE
Engineers,Scientists, Surveyors
Ph. (519) 743-6500

Client
Ferma Aggregates Inc.

Project
Carden Quarry

Site
Lot 6-10, Concession 9, Carden Township, City of Kawartha Lakes, ON

Title
Site Map

Reviewed By	TFC		
Prepared By	JAK	Project No	36123-200
Drawn By	JAK	Figure No	2
Date	March 2022		

Appendix A

ECA 9123-5WAQUT

Ontario

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

CERTIFICATE OF APPROVAL
INDUSTRIAL SEWAGE WORKS
NUMBER 9123-5WAQUT

Ferma Aggregates Inc.
2666 Rena Road
Mississauga, Ontario
L4T 3C8

Site Location: Ferma-Carden Quarry
Lot 7-9Pt.6&10, Concession 9
Kawartha Lakes City

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

the establishment of sewage works for the collection, transmission, treatment and disposal of up to 63 litres per second of groundwater and surface water that accumulates in the quarry, consisting of the following:

- one (1) collection sump (Sump A), initially located in the south east corner of the quarry and moved northerly as extraction operations process, measuring 65 metres long, 60 metres wide and 3 metres deep, equipped with a submersible pump operating at 2.0 litres per second (daily seepage) and a second submersible pump operating at 58 litres per second (precipitation), discharging to an interceptor ditch;

- one (1) interceptor ditch, located on the east side of the quarry, along the west side of Horncastle Road, extending from Sump A to the Main Branch of the Tributary to the Talbot River;

- one (1) temporary siltation basin, to be in operation until the collection sump is completed and made operational, to be located at the former location of the scale house (as shown on Figure 1 of the letter dated September 28, 2004) and constructed in bedrock, measuring 10 metres long, 5 metres wide and 1.5 metres deep, discharging to the west ditch on Horncastle Road via perforated pipe riser control structure;

- all other controls, electrical equipment, instrumentation, valves and appurtenances essential for the proper operation of the aforementioned sewage works;

all in accordance with the following submitted supporting documents:

1. Application for Approval of Industrial Sewage Works submitted by Antonio Ferragine of Ferma Aggregates Inc. dated January 29, 2004;

2. Ferma-Carden Quarry, Design Brief, OWRA Section 53 - Approval for Quarry Dewatering Discharge, prepared by Trow Associates Inc., dated February 4, 2004;

3. Ferma-Carden Quarry, Environmental Impacts Assessment prepared by Nibblett Environmental Associates Inc., dated January 1995;

4. Hydrotechnical Report Update, Ferma Aggregates Inc., Carden Quarry, 2002 prepared by Trow Associates Inc., dated May 22, 2002;

5. Hydrotechnical Report, Ferma - Carden Quarry, Ferma Crushed Stone Inc., 1995 prepared by Oliver, Mangione, McCalla and Associates Limited, dated April 1995;

6. Engineering Drawings No. 1 to 5, per December 2002 site plan, prepared by Trow Associates Inc.;

7. Letter and attachments dated March 12, 2004 from Gary Matthie, P.Eng. and Jamieson Gourley, P.Eng. of Trow

Associates Inc. to Randy Chin of the Ministry of the Environment;

8. Letter and attachments dated September 28, 2004 from Gary Matthie and Jamieson Gourley of Trow Associates Inc. to Randy Chin of the Ministry of the Environment.

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

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

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

"District Manager" means the District Manager of the Peterborough District Office of the Ministry;

"Ministry" means the Ontario Ministry of the Environment;

"Owner" means Ferma Aggregates Inc. and includes its successors and assignees; 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 CONDITION

(1) 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.

(2) 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.

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 or operating authority, or both;

(b) change of address of Owner or operating authority or address of new owner or operating authority;

(c) change of partners where the Owner or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act*; and

(d) change of name of the corporation where the Owner or operator is or at any time becomes a corporation, and a copy of the most current "Initial Notice or Notice of Change" (Form 1, 2 or 3 of O. Reg. 189, R.R.O. 1980, as amended from time to time), filed under the *Corporations Informations Act* shall be included in the notification to the District Manager.

(2) In the event of any change in ownership of the works, the Owner shall notify in writing the succeeding owner of the existence of this certificate, and a copy of such notice shall be forwarded to the District Manager.

(3) The Owner shall ensure that all communications made pursuant to this condition will refer to this certificate's number.

3. EFFLUENT LIMITS

(1) The Owner shall design, construct and operate the works such that the concentration of Total Suspended Solids does not exceed 25 milligrams per litre in the effluent from the works.

(2) For the purposes of determining compliance with and enforcing subsection (1), non-compliance with respect to the Total Suspended Solids concentration limit is deemed to have occurred when any single sample analyzed for Total Suspended Solids is greater than the corresponding maximum concentration set out in subsection (1).

4. EFFLUENT - VISUAL OBSERVATIONS

Notwithstanding any other condition in this certificate, the Owner shall ensure that the effluent from the works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.

5. EFFLUENT QUALITY MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the sewage 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) Samples shall be collected at the sump discharge into the interceptor ditch and analyzed, at the sampling frequencies and using the sample type specified for each parameter listed:

Table 1 - Effluent Monitoring	
Frequency	Once each Month During Periods of Effluent Discharge
Sample Type	Grab
Parameters	Total Suspended Solids, Oil and Grease, Total Ammonia, pH and Temperature
Frequency	Once every 3 months
Sample Type	Grab
Parameters	Calcium, Magnesium, Potassium, Aluminum, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium, Total Phosphorus, Silver, Zinc, Alkalinity, 5-day Biochemical Oxygen Demand, Chloride, Nitrite, Nitrate, Sulphate, Total Kjeldahl Nitrogen, Dissolved Organic Carbon, Phenols, Hardness, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene and Conductivity

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

> (a) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (August 1994), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions; and
>
> (b) the publication "Standard Methods for the Examination of Water and Wastewater" (17th edition) as amended from time to time by more recently published editions.

(4) The measurement frequencies and the analytical parameters specified in subsections (2) are minimum requirements which may, after 12 months of monitoring in accordance with this Condition, be modified by the District Manager in writing from time to time.

(5) The Owner shall measure, record and calculate the flowrate from Sump A daily, within an accuracy of plus or minus 15% of the actual flowrate.

(6) Conductivity, temperature and pH shall be measured and recorded in the field at the time of sampling. 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).

(7) 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.

6. RECEIVER WATER MONITORING

The Owner shall, upon commencement of operation of the sewage 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) Samples shall be collected at the upstream and downstream monitoring locations of the Talbot River Tributary stream and analyzed, at the sampling frequencies and using the sample type specified for each parameter listed:

Table 2 - Receiver Monitoring	
Frequency	Once each Month During Periods of Effluent Discharge
Sample Type	Grab
Parameters	Total Suspended Solids, Oil and Grease, Total Ammonia, pH and Temperature
Frequency	Once every 3 months
Sample Type	Grab
Parameters	Calcium, Magnesium, Potassium, Aluminum, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium, Total Phosphorus, Silver, Zinc, Alkalinity, 5-day Biochemical Oxygen Demand, Chloride, Nitrite, Nitrate, Sulphate, Total Kjeldahl Nitrogen, Dissolved Organic Carbon, Phenols, Hardness, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene and Conductivity

(3) The methods and protocols for sampling, analysis, and recording shall conform to that oultined in Condition 5(3).

(4) Sampling locations on the Talbot River Tributary stream shall be as follows:

Downstream: SurfaceWater Station No. 1, as shown on Figure 10 of Hydrotechnical Report, Ferma - Carden Quarry, Ferma Crushed Stone Inc., 1995 prepared by Oliver, Mangione, McCalla and Associates Limited, dated April 1995.

Upstream: upstream of the confluence of the Main Branch of the Tributary to the Talbot River and the interceptor ditch, in the location of SurfaceWater Station No. 2, as shown on Figure 10 of Hydrotechnical Report, Ferma - Carden Quarry, Ferma Crushed Stone Inc., 1995 prepared by Oliver, Mangione, McCalla and Associates Limited, dated April 1995.

(5) Conductivity, temperature and pH shall be measured and recorded in the field at the time of sampling. 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 and the analytical parameters specified in subsections (2) are minimum requirements

which may, after 12 months of monitoring in accordance with this Condition, be modified by the District Manager in writing from time to time.

(7) 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.

7. REPORTING

(1) The Owner shall report to the District Manager or designate, of any exceedence of any parameter specified in Conditions 3 and 4 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedence, as defined in Condition 3(2).

(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 spill, bypass or loss of any product, by product, intermediate product, oils, solvents, 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 prepare and submit a performance report to the District Manager 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 collected pursuant to Condition 5 and a comparison to the effluent limits outlined in Conditions 3 and 4 and the Provincial Water Quality Objective and/or Ontario Drinking Water Objective for the monitored parameter, including an overview of the success and adequacy of the sewage works;

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

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

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

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.

2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to approved works and to ensure that subsequent owners of the works are made aware of the certificate and continue to operate the works in compliance with it.

3. Conditions 3 and 4 are imposed to ensure that the effluent discharged from the works meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.

4. Condition 5 and 6 are included to require the owner to demonstrate on a continual basis that the quality of the effluent from the approved works is consistent with the effluent limits specified in the certificate and that the approved works does not cause any impairment to the receiving watercourse.

5. Condition 7 is included to provide a performance record for future references and to ensure that the Ministry is made aware of problems as they arise, so that the Ministry can work with the Owner in resolving the problems in a timely manner.

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 and in accordance with Section 47 of the Environmental Bill of Rights, S.O. 1993, Chapter 28, the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. 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 Environmental Commissioner
1075 Bay Street, 6th Floor
Suite 605
Toronto, Ontario
M5S 2B1

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**

This instrument is subject to Section 38 of the Environmental Bill of Rights, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at www.ene.gov.on.ca, you can determine when the leave to appeal period ends.

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

DATED AT TORONTO this 30th day of September, 2004

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

RC/
c: District Manager, MOE Peterborough
Jamieson S. Gourley, Trow Associates Inc.