

**Ministry of the Environment
and Climate Change**

Safe Drinking Water
Branch

Ottawa District Office
2430 Don Reid Drive
Ottawa ON K1H 1E1

**Ministère de l'Environnement et
de l'Action en matière de
changement climatique**

Direction du contrôle de la qualité de
l'eau potable

Bureau du district d'Ottawa
2430, chemin Don Reid
Ottawa (Ontario) K1H 1E1



January 27, 2015

Sent by Email: cao@laurentianhills.ca

The Corporation of the Town of Laurentian Hills
34465 Highway 17, RR#1
Deep River, Ontario
K0J 1P0

Attention: Ms. Sherry Batten
Chief Administrative Officer, Town of Laurentian Hills

Dear Ms. Batten:

Re: 2014-2015 Inspection Report

The enclosed report documents findings of the inspection that was performed at the Chalk River sewage works on November 6, 2014.

Two sections of the report, namely "Actions Required" and "Recommended Actions" cite due dates for the submission of information or plans to my attention.

Please note that "Actions Required" are linked to incidents of non-compliance with regulatory requirements contained within an Act, a Regulation, or site-specific approvals, orders or instructions. Such violations could result in the issuance of mandatory abatement instruments including orders, tickets, penalties, or referrals to the ministry's Investigations and Enforcement Branch.

"Recommended Actions" convey information that the owner or operating authority should consider implementing in order to advance efforts already in place to address such issues as emergency preparedness and conformance with existing and emerging industry standards. Please note that items which appear as recommended actions do not, in themselves, constitute violations.

Thank you for the assistance afforded to me during the conduct of the compliance assessment. Should you have any questions regarding the content of the enclosed report, please do not hesitate to contact me.

Yours truly,

Jen Bitten, B.Sc.
Drinking Water Inspector, Badge #1609
Ministry of the Environment, Safe Drinking Water Branch
2430 Don Reid Drive
Ottawa, ON K1H 1E1

Tel: 613-521-3450 ext. 255 or 1-800-860-2195

Fax: 613-521-5437

E-mail: jen.bitten@ontario.ca

JB

Enclosure

- ec: Greg Prangley, Project Manager, American Water, 701 Main Street, Hamilton, ON L8S 1A2, gprangley@amwater.com
- Dave Ethier, Lead Operator, Chalk River WWTP, American Water, 7 Blimpke Street, Chalk River, ON K0J 1P0, dethier@amwater.com
 - Rick Watchorn, District Manager, Ministry of Natural Resources, Pembroke District Office, 31 Riverside Drive, Pembroke, ON K8A 8R6, rick.watchorn@ontario.ca
 - Mike Grace, Manager, Environmental Health, Renfrew County & District Health Unit, 7 International Drive, Pembroke, ON K8A 6W5, mgrace@rcdhu.ca
- c: File SI-RE-LH-BL-441 (2013)



Ministry of the Environment

WW CHALK RIVER WPCP

Inspection Report

Site Number:	110001587
Inspection Number:	1-BBUUJ
Date of Inspection:	Nov 06, 2014
Inspected By:	Jen Bitten

OWNER INFORMATION:

Company Name: LAURENTIAN HILLS, TOWN OF
Street Number: 34465 **Unit Identifier:**
Street Name: HIGHWAY 17
City: DEEP RIVER
Province: ON **Postal Code:** K0J 1P0

CONTACT INFORMATION

Type: Owner **Name:** Sherry Batten
Phone: (613) 584-3114 **Fax:** (613) 584-3285
Email: cao@laurentianhills.ca
Title: Chief Administrative Officer, Town of Laurentian Hills

Type: Operating Authority **Name:** Greg Prangley
Phone: (905) 521-4605 **Fax:** (905) 544-0266
Email: gprangley@amwater.com
Title: Project Manager, American Water

Type: Main Contact **Name:** Dave Ethier
Phone: (613) 589-2161 **Fax:** (613) 589-2158
Email: dethier@amwater.com
Title: Lead Operator, Chalk River

INSPECTION DETAILS:

Site Name: WW CHALK RIVER WPCP
Site Address: 7 BLIMPKE ST LAURENTIAN HILLS ON K0J 1J0
County/District: Laurentian Hills
MOE District/Area Office: Ottawa District
Health Unit: RENFREW COUNTY AND DISTRICT HEALTH UNIT
Conservation Authority: N/A
MNR Office: Pembroke District Office
Site Number: 110001587
Inspection Type: Announced
Inspection Number: 1-BBUUJ
Date of Inspection: Nov 06, 2014
Date of Previous Inspection: Mar 12, 2013

COMPONENTS DESCRIPTION

Site (Name): Wastewater Treatment
Type: Plant Classification **Sub Type:** Class II

Comments:

Facility certificate #533.

Site (Name): Wastewater Collection**Type:** Plant Classification**Sub Type:** Class II**Comments:**

Facility certificate #534.

Site (Name): Chalk River Wastewater Treatment**Type:** Mechanical Sewage Treatment**Sub Type:** Pre-treatment**Comments:**

Barscreens located at the pump stations trap some larger debris, manually cleaned.

Comminutor noted in ECA is not in service.

Site (Name): Chalk River Wastewater Treatment**Type:** Mechanical Sewage Treatment**Sub Type:** Primary Treatment**Comments:**

Twin grit removal channels located at the plant inlet allow for some primary settling.

Site (Name): Chalk River Wastewater Treatment**Type:** Mechanical Sewage Treatment**Sub Type:** Secondary Treatment**Comments:**

Package Wastewater Treatment Plant is designed to operate under two different operational modes based on incoming flows; however, the plant operates only in contact stabilization mode due to higher incoming flows and the process description included in this report is contact stabilization.

Extended Aeration Mode for average daily flows up to 363m³/day

Contact Stabilization Mode for average daily flows up to 545m³/day

Sewage travels from the inlet and enters a contact tank/mixing zone where incoming sewage is mixed with activated sludge from the reaeration zone. Flows then travel to the clarifier for settling. Sludge is removed from the clarifier and enters the reaeration zone to produce activated sludge with aeration for a significant period. Clarified flows overflow to the effluent trough and directed to the chlorine contact chamber where disinfection occurs through chlorination and then to the effluent receiver. Sludge is wasted from the reaeration tank to the aerobic digester where further sludge stabilization occurs.

Aeration to the contact tank, reaeration tank and digester is provided by two (2) blowers.

Site (Name): Chalk River Chemical Addition**Type:** Mechanical Sewage Treatment**Sub Type:** Chemical Addition**Comments:**

The ECA includes approval to add a coagulant; however, it has not been used considering the plant meets the ECA limits without the use of a coagulant.

The ECA also notes a polyelectrolyte pump and a sodium carbonate pump.

Site (Name): Chalk River Effluent
Type: Method of Disinfection **Sub Type:** Chlorination
Comments:
 Effluent is disinfected using chlorination, monitored manually with daily grab samples for chlorine residual testing.

Site (Name): Chalk River Effluent
Type: Effluent Discharge Receiver **Sub Type:** Surface Water
Comments:
 Effluent is discharged to Black Duck Creek, also known as Pumphouse Creek.

Site (Name): Chalk River Effluent
Type: Effluent Discharge Frequency **Sub Type:** Continuous
Comments:
 Continuous discharge.

Site (Name): Chalk River Collection
Type: Sewage Collection System **Sub Type:** Nominally Separated Sewers
Comments:
 The collection system is considered to be separated; however, infiltration remains an ongoing issue with a significant increase in flows during precipitation events or spring melt.

Site (Name): Chalk River Collection
Type: Collection System Component **Sub Type:** Pumping station
Comments:
 Main pump station, located at Main Street and Railway Street. Two (2) submersible pumps equipped with variable frequency drives pump sewage to the pump station located at the plant.

Site (Name): Chalk River Collection
Type: Collection System Component **Sub Type:** Pumping station
Comments:
 Plant pump station, located at the sewage plant, is equipped with two (2) submersible pumps equipped with variable frequency drives to pump directly into the inlet of the plant.

Site (Name): Chalk River Biosolids
Type: Biosolids Stabilization Process **Sub Type:** Other
Comments:
 Aerobic digestion.

Site (Name): Chalk River Biosolids
Type: Type of Biosolids **Sub Type:** Liquid

Comments:

Liquid aerobic biosolids.

Site (Name): Chalk River Biosolids**Type:** Biosolids Storage Method**Sub Type:** On-Site Storage Capacity**Comments:**

An aerobic digester (130m³ while in contact stabilization mode) is included as part of the package treatment plant which provides approximately 90 days of storage.

Site (Name): Chalk River Biosolids**Type:** Biosolids Disposal Method**Sub Type:** Land application**Comments:**

Biosolids are land applied or hauled to another treatment plant for further processing.

Site (Name): Chalk River Stand-by Power**Type:** Stand-by Power Generation**Sub Type:** STP Generator**Comments:**

Standby power is provided by an on-site diesel generator which powers the entire plant and the on-site pump station.

Site (Name): Chalk River Stand-by Power**Type:** Stand-by Power Generation**Sub Type:** Pumping Station Generator(s)**Comments:**

Standby power is provided by a diesel generator located inside the pump station.

INSPECTION SUMMARY

INTRODUCTION

- * The primary focus of this inspection is to confirm compliance with Ministry of the Environment legislation and control documents, as well as conformance with Ministry related policies for the inspection period.

This wastewater treatment and collection system is subject to the legislative requirements of the Ontario Water Resources Act (OWRA), the Environmental Protection Act (EPA), and the Nutrient Management Act, 2002 (NMA) and regulations made therein. This inspection has been conducted pursuant to Section 15 of the OWRA, Section 156 of the EPA and Section 13 of the NMA.

This inspection does not in any way suggest that all applicable legislation and regulations were evaluated. It is, and remains the responsibility of the owner, to ensure compliance with all applicable legislative and regulatory requirements.

The Chalk River Wastewater Treatment Plant (WWTP) is owned by the Town of Laurentian Hills and operated by American Water (AW).

An inspection was conducted on November 6, 2014 and was attended by Ministry of the Environment and Climate Change Water Inspector Jen Bitten and AW staff Dave Ethier. The site was last inspected on March 12, 2013 and this inspection period includes from March 12, 2013 - November 6, 2014.

An audit sample of final effluent was taken as part of the inspection and was analyzed for microbiological parameters, these results are found in the Appendices.

AUTHORIZING/CONTROL DOCUMENTS

- * The owner had a valid Environmental Compliance Approval for the sewage works.

Chalk River WWTP is approved under Environmental Compliance Approval #3-0210-87896, issued in July 1989. It was amended with a Notice in October 1991. A copy of the ECA is included in the Appendices.

Please note that Certificates of Approval are now referred to as Environmental Compliance Approvals (ECA) and ECA will be used throughout this report to refer to the facility's current approval.

CAPACITY ASSESSMENT

- * The annual average daily flow was approaching the rated capacity of the sewage works.

The ECA states a rated capacity of 545m³/day in contact stabilization mode. The average flow into the plant in 2013 was 417m³/day or 77% of the design capacity. During 2014 to date, average daily flows are 437m³/day or 80% of the design capacity.

It is noted that flows are measured during plant checks by recording the flow meter readings and may not be based exactly on a 24-hour calendar day.

During spring melt and other high flow scenarios, the pump station is operated on a manual basis with operators closely monitoring the levels to ensure that flows are regulated to the sewage plant and does not overflow at the pump station and/or into basements. The operators are well aware of the capabilities of the plant and pump station in order to manage all incoming flows, especially during periods of high flow.

The Town initiated a Phase 1 & 2 Class Environmental Assessment (Schedule B) to assess the current state of the plant and provides options to resolve the flow issues. The preferred option was

CAPACITY ASSESSMENT

to install a secondary clarifier which could be incorporated into the existing plant. The Town has applied for grant money to assist in the cost of the upgrade; however, they have not been successful in acquiring grant money and are looking at other options to pay for this upgrade work. The Town is aware that the sewage plant will require upgrading in order to continually meet effluent requirements.

Wastewater flows from the water plant have been noted as an issue affecting the sewage plant in past reports. The Town has recently installed variable frequency drives on one of the wastewater pumps at the water plant. While this will allow operators to better manage these flows, especially in the spring, the total volume of flow transferred from the water plant to the sewage plant remains the same.

- * **The owner was in conformance with the designed rated capacity for average daily flow into the sewage works.**
- * **Flow measuring devices were installed, calibrated and maintained.**

Raw sewage is measured entering the plant, there are no additional flow meters. The meter is calibrated on an annual basis and records were provided indicating it was last completed in September 2014.

TREATMENT PROCESSES

- * **The owner had not ensured that all equipment was installed in accordance with the Environmental Compliance Approval.**

As noted in the previous inspection reports, the comminutor is not operational although listed in the ECA as part of the components of the system. The comminutor removes larger debris by breaking it up prior to the treatment plant and currently larger debris can pass through the inlet and cause issues within the treatment tanks. It is noted that the configuration of the existing comminutor does not allow the unit to operate efficiently - depending on the incoming flows, the teeth on the grinder do not reach the majority of the incoming flows and therefore will not grind much of the incoming larger debris. The planned bypasses were required in order to remove grit and rags from the system and it was noted after the bypass that there was a large amount of rags removed which would not have been present with a functional comminutor. The requirement for this unit should be assessed and either replaced or removed from the ECA.

At the time of inspection, the top scum arm on the clarifier was not installed. The arm is removed for the winter months due to ice buildup in the clarifier which could damage the arm.

The plant is also approved to add a coagulant. A coagulant is not used due to the plant meeting effluent quality without it. The ECA also approves chemical metering pumps for polyelectrolyte and sodium carbonate, these pumps are also not utilized.

- * **The works, related equipment and appurtenances were being operated and maintained to achieve compliance prescribed by the Environmental Compliance Approval.**
- * **The operator-in-charge had ensured that all equipment used in the processes was monitored, maintained, inspected, tested and evaluated.**
- * **The sewage works effluent was essentially free of foreign substances on the day of the inspection.**

EFFLUENT QUALITY AND QUANTITY

EFFLUENT QUALITY AND QUANTITY

- * **The sewage works effluent limits were prescribed by the Environmental Compliance Approval.**

Effluent limits are specified in Condition 14.0 of the ECA. Limits are provided for BOD5, Suspended Solids (TSS) and Total Phosphorus (TP).

- * **The sewage works effluent sample results demonstrated compliance with BOD5 or CBOD5 limits prescribed by the Environmental Compliance Approval.**

Effluent BOD5 sampling is required on a biweekly basis, with compliance based on annual averages for both concentration and loading.

The annual average concentration in 2013 was 4.4mg/L, well within the ECA limit of 25mg/L. So far in 2014, BOD5 is averaging around 6.6mg/L, also on track for compliance for the calendar year of 2014.

The annual average loadings are well within the ECA limit of 13.6kg/day.

- * **The sewage works effluent sample results demonstrated compliance with total suspended solids limits prescribed by the Environmental Compliance Approval.**

Effluent Suspended Solids sampling is required on a biweekly basis, with compliance based on annual averages for both concentration and loading.

The annual average concentration in 2013 was 13.6mg/L, well within the ECA limit of 25mg/L. So far in 2014, suspended solids are averaging around 8.7mg/L, also on track for compliance for the calendar year of 2014.

The annual average loadings are well within the ECA limit of 13.6kg/day.

- * **The sewage works effluent sample results demonstrated compliance with total phosphorous limits prescribed by the Environmental Compliance Approval.**

Effluent Total Phosphorus sampling is required on a weekly basis, with compliance based on a monthly average for concentration and an annual average for loadings.

Monthly average concentrations in 2013 ranged from 0.29mg/L-0.94mg/L, well within the ECA limit of 1.0mg/L. So far in 2014, monthly averages have also been well within the ECA limit.

The annual average loadings are well within the ECA limit of 0.5kg/day.

- * **The sewage works effluent sample results met the effluent guideline.**

The ECA does not include any disinfection requirements with regard to chlorine residual monitoring or E.coli levels in the effluent; however, sampling for E.coli and total coliform is required in the ECA.

The Provincial Water Quality Objective for E.coli is 100cfu/100mL based on a monthly geometric mean. ECAs that include limits for E.coli are typically set at 200cfu/100mL for sewage plants discharging to surface water. Previous inspections have noted instances where E.coli levels have exceeded the objective. Since the last inspection, results have been well within the guideline objective with the exception of during the bypass and two other months where the geometric mean was still less than 200cfu/100mL.

The ECA does not include chlorine residual monitoring, but the Ministry's Procedure F-10-1 stipulates a daily total chlorine residual to be taken if chlorination is practiced. Chalk River conducts manual chlorine residual sampling on a daily basis (weekdays) and the plant is not equipped with continuous chlorine monitoring. A chlorine residual of 0.5mg/L after appropriate contact time is the design criteria for chlorine disinfection.

Managing disinfection with chlorination requires a balance between sufficient chlorine residual and bacteria levels being discharged. Chlorine dosage is not flow paced due to issues with using a raw flow meter as the basis for effluent flow dosing. A final effluent flow meter would allow the system to dose at a more accurate rate as it would be based on the flows where chlorination occurs.

EFFLUENT QUALITY AND QUANTITY

Currently, the chlorine pump is manually set at a constant flow rate and disinfection rates will vary throughout the day. Sampling at different times throughout the day would likely show variation in the bacteria levels; however, the overall cumulative mixing effect on the receiving waterbody would likely average out during the day. It is noted that the receiving waterbody is not used for recreational purposes. Consideration to dechlorinating the final effluent, the installation of a final effluent flow meter or upgrading to a UV disinfection system is recommended.

- * **The inspector collected audit samples during the inspection.**

A microbiological sample was taken for analysis at the Ministry's laboratory. Results are attached in the Appendices. The single E.coli result was above the Provincial Water Quality Objectives guideline of 100cfu/100mL; however, the geometric mean including the other results for the month was well within the guideline.

MONITORING REQUIREMENTS

- * **The sampling requirements were prescribed by the Environmental Compliance Approval.**

Sampling requirements are specified in Condition 15.0 of the ECA for both raw and effluent sample locations.

The ECA requires bi-weekly raw and effluent sampling of: BOD5, Suspended Solids (TSS), Total Kjeldahl Nitrogen (TKN), Total Ammonia Nitrogen (TAN), Nitrate/Nitrite, Total Coliforms and E.coli. Total Phosphorus (TP) is required on a weekly basis.

- * **All sewage works effluent sampling requirements prescribed by the Environmental Compliance Approval were met.**

A review of samples taken indicates that these samples are taken as required.

- * **All sewage works influent (raw sewage) sampling requirements prescribed by the Environmental Compliance Approval were met.**

A review of samples taken indicates that these samples are taken as required.

- * **The owner had maintained the monitoring records since the date of the last inspection.**

REPORTING REQUIREMENTS

- * **The reporting requirements were prescribed by an Environmental Compliance Approval.**

Condition 18.0 of the ECA has requirements for reporting emergencies and abnormal situations. Any such occurrences shall be reported to the Spills Action Centre (SAC) and a written report within ten (10) working days of the incident. The condition further includes the reporting of any non-compliance with the ECA within twenty-four (24) hours of the incident with a written report within five (5) days.

- * **The annual performance reports met the submission and contents requirements of the Environmental Compliance Approval.**

Condition 17.0 of the ECA states the requirements for these annual reports. The annual report is completed and submitted as required.

BYPASSES AND OVERFLOWS

- * **Notices and written reports of all bypasses/overflows were provided to the Ministry in accordance with the Environmental Compliance Approval.**

The plant and pump stations do not have emergency bypass capabilities. Planned bypasses for maintenance purposes has been completed and is discussed in the next section of this report.

BYPASSES AND OVERFLOWS

- * **The owner/operating authority of the sewage works requested consent prior to all planned bypasses/overflows and provided written reports to the Ministry, in accordance with O.Reg. 675/98, section 4.**

Since the last inspection in March 2013, there have been two (2) planned bypasses to conduct maintenance on the system. Planned bypasses require approval and notifications in advance of initiating the work, a minimum of fifteen (15) days.

In September 2013, a planned bypass was conducted to replace valves. This was approved as required in advance under Ontario Regulation 675/98. All reporting and monitoring was completed.

In September 2014, another planned bypass was conducted to remove grit and debris from the system as well as make some repairs. This bypass was approved under Provincial Officer's Order #1-BMDQT and all reporting and monitoring was completed as required.

BIOSOLIDS MANAGEMENT

- * **The owner was maintaining records of the amount of biosolids generated at the sewage works.**

The amount of biosolids removed from the digester are recorded and included in the annual reports.

- * **The owner of the facility had written contingency plans or other management methods in place to be used in the event that the facility's sludge storage capacity was not sufficient.**

Biosolids are land applied and transferred to other treatment facilities, usually Pembroke or Ottawa (ROPEC).

- * **The sewage biosolids intended for land application were sampled in accordance with regulatory requirements.**

Biosolids are tested on a monthly basis. Results of the monthly samples are sent to the other facilities that accept the sludge to demonstrate that it meets the requirements.

- * **The sewage biosolids intended for land application met the material quality and sampling frequency criteria specified in the guidelines.**

- * **The quality of sewage biosolids intended for land application complied with regulatory requirements.**

- * **Testing for biosolids required by legislation was conducted by accredited laboratories.**

- * **The owner had maintained haulage records for the biosolids transferred from the sewage works.**

- * **Records confirm that biosolids were transferred to a Ministry approved facility for disposal or utilization.**

The ECA for the land application expired on December 14, 2014 and there are currently no fields for land application approved for the biosolids. These fields are now approved under the Nutrient Management Act and the Town should ensure that plans are made obtain new spreading sites for the 2015 season and beyond.

- * **Records confirm that biosolids were transported for disposal or utilization by Ministry approved haulers.**

Biosolids are hauled under ECA #H-8700-17.

CERTIFICATION AND TRAINING

- * **The classification certificates of the subsystems were conspicuously displayed at the workplace or at premises from which the subsystem was managed.**
- * **Operator licences were displayed in a conspicuous location at the workplace or at the premises from which the subsystem was managed.**
- * **The overall responsible operator had been designated for the wastewater treatment and collection works.**

The Overall Responsible Operator (ORO) is noted in the logbook each day. This ORO is for the collection system and the treatment plant.

- * **All operators had the appropriate level of licences for the wastewater treatment and collection works.**

The treatment plant is classified as a Class II Wastewater Treatment Plant (certificate #533).

The collection system is classified as a Class II Wastewater Collection System (certificate #534).

Operators are certified to the appropriate levels.

- * **Only licenced operators made adjustments to the treatment equipment.**
- * **Operators-in-charge were designated for the wastewater treatment plant and all associated collection works.**

The Operator In Charge (OIC) is noted in the logbook each day.
- * **The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.**

LOGBOOKS

- * **The logs and other record keeping mechanisms complied with the record keeping requirements.**
- * **Logs and other record keeping mechanisms were available for at least two (2) years.**

OPERATIONS MANUALS

- * **The operations and maintenance manuals met the requirements of the Environmental Compliance Approval.**
- * **Operators and maintenance personnel had ready access to operations and maintenance manuals.**
- * **The operations and maintenance manuals contained up-to-date plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

CONTINGENCY/EMERGENCY PLANNING

CONTINGENCY/EMERGENCY PLANNING

- * **A spill prevention control and countermeasures plan was established.**
- * **Spill containment was not provided for the process chemicals and/or standby power generator fuel.**

The chlorine tank does not have spill containment provisions. The diesel tank at the Main Street pump station is not equipped with spill containment.

It is strongly recommended that measures be taken to ensure that all tanks are provided with spill containment.

- * **The owner had provided security measures for the facility.**

The site is enclosed by a fence with a locking gate which is kept locked when operators are not on-site. Both the plant and pump station are equipped with intrusion alarms.

OTHER INSPECTION FINDINGS

- * **The owner had complied with all Orders or other control documents issued since the date of the previous inspection.**

As previously discussed in this report, Provincial Officer's Order #1-BMDQT was a Preventive Measures Order issued under the Ontario Water Resources Act (OWRA) to allow a planned bypass in order to conduct maintenance. All aspects of the Order was complied with and the Order has been closed.

- * **The following issues were also noted during the inspection:**

The collection system is considered to be separated; however, there is significant infiltration into the sanitary system, increasing flows to the wastewater treatment plant (WWTP). During spring melt each year, operators manually operate and must closely monitor the pump station and plant to ensure the WWTP is not washed out or overflow at the pump station. A comparison of flows produced at the water plant to flows entering the WWTP indicates significant infiltration on a regular basis, especially for a system that is considered separated.

Previous inspections have noted ongoing infiltration issues within the collection system. Camera work conducted in the collection system in 2014 has identified at least two (2) areas of major infiltration suspected to be caused by sump pumps and/or weeping tiles that are connected to the collection system which have been ongoing for some time. The Town has a bylaw in place prohibiting illegal connections of sump pumps to the sewer system.

Considering the preferred upgrades to the WWTP are not likely to be initiated in the near future, these infiltration sources should be eliminated in order to reduce the incoming flows to the WWTP. Eliminating these flows will assist with the hydraulic issues experienced at the plant.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

1. The owner had not ensured that all equipment was installed in accordance with the Environmental Compliance Approval.

As noted in the previous inspection reports, the comminutor is not operational although listed in the ECA as part of the components of the system. The comminutor removes larger debris by breaking it up prior to the treatment plant and currently larger debris can pass through the inlet and cause issues within the treatment tanks. It is noted that the configuration of the existing comminutor does not allow the unit to operate efficiently - depending on the incoming flows, the teeth on the grinder do not reach the majority of the incoming flows and therefore will not grind much of the incoming larger debris. The planned bypasses were required in order to remove grit and rags from the system and it was noted after the bypass that there was a large amount of rags removed which would not have been present with a functional comminutor.

Action(s) Required:

The Town is required to provide a written plan for ensuring the wastewater treatment plant is operated in accordance with the ECA (#3-0210-87-896). This may include the replacement of the comminutor or an amendment of the ECA. Considering the upgrades to the plant will not occur in the near future, this item should be addressed to ensure the plant is not adversely affected.

The written plan is required to be submitted to the undersigned Water Inspector by no later than June 30, 2015.

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

1. Spill containment was not provided for the process chemicals and/or standby power generator fuel.

The chlorine tank does not have spill containment provisions. The diesel tank at the Main Street pump station is not equipped with spill containment.

Recommendation:

It is strongly recommended that measures be taken to ensure that the tanks are provided with spill containment.

2. The following issues were also noted during the inspection:

The collection system is considered to be separated; however, there is significant infiltration into the sanitary system, increasing flows to the wastewater treatment plant (WWTP). During spring melt each year, operators manually operate and must closely monitor the pump station and plant to ensure the WWTP is not washed out or overflow at the pump station. A comparison of flows produced at the water plant to flows entering the WWTP indicates significant infiltration on a regular basis, especially for a system that is considered separated.

Previous inspections have noted ongoing infiltration issues within the collection system. Camera work conducted in the collection system in 2014 has identified at least two (2) areas of major infiltration suspected to be caused by sump pumps and/or weeping tiles that are connected to the collection system which have been ongoing for some time. The Township has a bylaw in place prohibiting illegal connections of sump pumps to the sewer system.

Considering the preferred upgrades to the plant are not likely to be initiated in the near future, these infiltration sources should be eliminated in order to reduce the incoming flows to the WWTP. Eliminating these flows will assist with the hydraulic issues experienced at the plant.

Recommendation:

The Town should be investigating the reported sources of infiltration and working to eliminate them. A written plan is requested on how the infiltration issue will be dealt with, including timelines for ensuring the sources are eliminated in accordance with the bylaw.

The written plan shall be submitted to the undersigned Water Inspector by no later than June 30, 2015.

SIGNATURES

Inspected By:

Jen Bitten

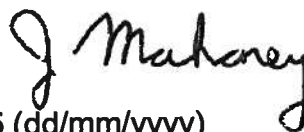
Signature: (Provincial Officer):



Reviewed & Approved By:

James Mahoney

Signature: (Supervisor):



Review & Approval Date: 27/01/2015 (dd/mm/yyyy)

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

APPENDIX A

AUDIT SAMPLE RESULTS

C216260

Etobicoke, Ontario M9P 3V6

FINAL REPORT(manager4)

Print Date: Nov. 21, 2014 03:11 PM By REPORTADMIN

**** FINAL ****

Code 130152401 Program: MOE OPERATIONS DIVISION
Study: SEWAGE, COMMUNAL (INCLUDES SWIP)
Project: EASTERN REGION - OTTAWA DIST.
Activity: IMPACT STUDIES
Organization: ER-SDWB-OTTAWA DISTRICT OFFICE

g. Id: 410803

Mail this copy to :

BITTEN, JEN
MOE - OTTAWA DISTRICT OFFICE
2430 DON REID DRIVE
OTTAWA, ONT
K1H 1E1

ports to : MAHONEY, JIM
DEBARROS, CAROL
BITTEN, JEN

red for release by : DAVE MORSE Manager, Organic Contaminants Section

Approved date : Nov. 21, 2014

Inquiries to : DAVE MORSE
CHUNYAN HAO

Telephone : 416-235-5989
Telephone : 416-235-6033

DESCRIPTION: LAURENTIAN HILLS CHALK R. W.W.T.P.

its relate only to items tested.

le customer service feedback on this report and/or other services provided by LaSB, please contact the LaSB HelpDesk at 416-235-6030 or the Customer Service Manager at 416-235-5831

rt contains confidential information intended only for the person(s) to whom it is addressed. Any unauthorized disclosure, copying, other distribution of this report, or taking any action on its content is strictly
d. If you have received this report in error, please contact the LaSB HelpDesk at 416-235-6030 or the Customer Service Manager at 416-235-5831

C216260

Station ID
110001587

Sample ID
C216260-0001

AS Products Requested:
E3371A ECFS3371

Sample Location Description
CHALK RIVER FINAL EFFLUENT

Sample Comment Description
GRAB

Sampling
Date
06 NOV 2014

Time
11:18

Zone
5

Sampler
Information

Accuracy
(metres)

6-10M

Collection
Method

GPS

Map Datum

NAD83

Easting Northing

5099298

C216260

Etobicoke, Ontario M9P 3V6

FINAL REPORT(manager4)

Print Date: Nov. 21, 2014 03:11 PM By REPORTADMIN

**** FINAL ****

Field ID:
Sample ID:
MOE*LIMS ID:
Station ID:
Collect Date:
Sample Location Description:

JCB-CRWW-01
C216260-0001
2014TE44-00027
110001587
06 NOV 2014

CHALK RIVER FINAL EFFLUENT

Sample Comments Description:

Parname

Escherichia coli
Fecal streptococcus

Value	Units	GRAB Qual	Rmk1	Rmk2
460	c/100mL			
3900	c/100mL			

Etobicoke, Ontario M9P 3V6

FINAL REPORT(manager4)

Print Date: Nov. 21, 2014 03:11 PM By REPORTADMIN

**** FINAL ****

C216260

CODE DESCRIPTION

COMMENT

Test Completion

Sample ID	Matrix	Method	Product	Analytical Department	Completion Date
16260-0001	TE	E3371A	ECFS3371	6515	10-NOV-14

Method Summary

Method Description	Status	Status Description
A MEMBRANE FILTRATION METHOD FOR THE DETECTION AND ENUMERATION OF TOTAL COLIFORM, ESCHERICHIA COLI, PSEUDOMONAS AERUGINOSA AND FECAL STREPTOCOCCI	ROUTINE	Method has been fully validated, is deemed fit for purpose and has the associated Uncertain information available upon request

of Report ***

APPENDIX B**ENVIRONMENTAL COMPLIANCE APPROVAL(S)**

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of:

a fait, conformément à l'article 24 de la loi sur les ressources en eau de l'Ontario, une demande d'autorisation:

modifications to the existing Chalk River Water Pollution Control Plant in the Village of Chalk River, in order to treat an average daily sewage flow of 363 m³/d when operating in an extended aeration mode and an average daily sewage flow of 545 m³/d when operating in a contact stabilization mode, consisting of the following:

- the installation of seventy-two (72) new coarse bubble air diffusers complete with eighteen (18) header assemblies and new air header piping;
- the installation of two (2) new submersible sewage pumps in main sewage pumping station each rated at 22.7 L/s at a TDH of 12.2 m, including modifications to the pump control system to allow for variable speed pump operation;
- replacement of the existing comminutor with a new unit rated at 53 L/s, complete with an enclosure;
- replacement of the existing scum arm on the final clarifier with a new unit and the replacement and relocation of the scum box;
- the enlargement of all compartmental gates to 300 mm diameter;
- the replacement and extension of the influent trough;
- the relocation of the catwalk;
- the installation of a new submersible sludge pump rated at 5.7 L/s at a TDH of 4.6 m, including installation of a flexible suction hose;

Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

Le présent document certifie qu'après vérification en bonne et due forme la construction dudit projet d'ouvrages a été approuvée aux termes de l'article 24 de la loi sur les ressources en eau de l'Ontario.

DATED AT TORONTO this 20th day of July, 1989

DATÉ À TORONTO ce jour d

C.C.: Mrs. P. G. Rantz, Clerk, Village of Chalk River
Mr. A. Symmonds, M.O.E. S.E., Acting Reg. Dir.
J. L. Richards & Associates Limited

nk

..... 2

Director / Directeur

- four (4) variable speed chemical pumps each rated as follows:

- i) alum pump - 45 L/d
- ii) polyelectrolyte pump - 400 L/d
- iii) sodium carbonate pump - 35 L/d
- iv) hypochlorite pump - 140 L/d;

- one (1) FRP 18 m³ alum storage tank;

- one (1) FRP 350 L alum day tank;

including interconnecting piping, valves, appurtenances, associated equipment and instrumentation, all in accordance with the information outlined in Schedule "A", at a total estimated cost, including engineering and contingencies, of \$680,000, subject to the following terms and conditions considered necessary by the undersigned,

SPECIAL TERMS AND CONDITIONS

1.0 DEFINITIONS

For the purpose of this certificate of approval:

- (1) "Director" means the Director of the Approvals Branch of the Ministry of the Environment;
- (2) "District Officer" means the District Officer of the Ottawa District Office in the Southeast Region of the Ministry of the Environment;
- (3) "Ministry" means the Ministry of the Environment for the Province of Ontario;
- (4) "Owner" means the Ministry of the Environment for the Province of Ontario;
- (5) "Regional Director" means the Regional Director of the Southeast Region of the Ministry of the Environment;
- (6) "Spills Action Centre" is the Spills Action Centre for the Ministry of the Environment;
- (7) "certificate" means the entire within certificate of approval approval, issued in accordance with Section 24 of the Ontario Water Resources Act;
- (8) "work" means the facility approved by the within certificate as described in its preamble, in the owner's application and in supporting information submitted by the Owner and approved by this certificate;

..... 3

- (9) "average annual concentration" is the arithmetic mean of all samples taken within a twelve consecutive month period based on a minimum of at least one daily sample per month;
- (10) "average annual loading" is the arithmetic mean of the total mass of all daily discharges samples or measured or both during a calendar year and is calculated by multiplying the average annual concentration by the average daily flow;
- (11) "average daily flow" means the total flow to the works during the period of operation divided by the number of days in the period;
- (12) "average monthly concentration" means the arithmetic mean of the concentration of all daily discharges sampled or measured or both, during a calendar month and is determined based on at least one daily sample per week;
- (13) "average monthly loading" means the arithmetic mean of the total mass of all daily discharges sampled or measured or both during a calendar month and is calculated by multiplying the average monthly concentration by the average daily flow;
- (14) "biweekly" means once every two weeks;
- (15) "BOD₅" means five day biochemical oxygen demand in an unfiltered sample;
- (16) "composite sample" means a volume of effluent made up of three or more sub-samples that have been combined automatically or manually or obtained from a slip stream to an on-line analyzer;
- (17) "FRP" means fibreglass reinforced plastic;
- (18) "grab sample" means an individual sample of at least 100 millilitres collected at a randomly selected time over a period not exceeding 15 minutes;
- (19) "kg/d" means kilograms per day;
- (20) "L" means litres;
- (21) "L/d" means litres per day;
- (22) "L/s" means litres per second;

- (23) "m" means metres;
- (24) "mm" means millimetres;
- (25) "m³" means cubic metres;
- (26) "m³/d" means cubic metres per day;
- (27) "mg/L" means milligrams per litre;
- (28) "TDH" means total dynamic head

2.0 REQUIREMENTS

Requirements specified in this certificate are the requirements under Section 24 of the Ontario Water Resources Act. The issuance of this certificate in any way abrogates the Owner's legal obligations to take all reasonable steps to avoid violating applicable provisions of this legislation and other legislation and regulations.

3.0 SEVERABILITY AND CONFLICTS

- 1) 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, the application of such requirement to other circumstances and the remainder of the certificate shall not be affected thereby.
- 2) In the event of a conflict between information submitted in support of the application for this certificate, whether referred to in this certificate or not, and any term or condition of this certificate, the term or condition shall prevail.

4.0 COMPLIANCE

The owner must ensure compliance with all the terms and conditions of this certificate. Any non-compliance constitutes a violation of the Ontario Water Resources Act and is grounds for enforcement.

5.0 INFORMATION

The owner shall furnish to the Regional Director any information which the Regional Director may request concerning compliance with this certificate pursuant to Section 31 of the Ontario Water Resources Act, and copies of any records required to be kept by this certificate.

6.0 ENTRY AND INSPECTION

The Owner shall allow Ministry personnel, or Ministry authorized representatives, upon presentation of credentials, to:

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- (1) carry out any and all inspections authorized by Section 126, 126a or 127 of the Environmental Protection Act, Section 10, 10a, or 10b of the Ontario Water Resources Act or Section 19 or 19a of the Pesticides Act, as amended from time to time, of any place to which this certificate relates; and,

without restricting the generality of the foregoing, to:

- (2) (a) enter upon the premises, at reasonable times, where the approved sewage work are located, or the location where the records required by the conditions of this certificate are kept;
- (b) have access to and copy, at reasonable times, any records required by the conditions of this certificate;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations required by the conditions of this certificate; and
- (d) sample and monitor at reasonable times for the purposes of assuring compliance with the conditions of this certificate.

7.0 CONSTRUCTION CHANGES

- (1) But for changes in the construction/design, resulting from unforeseen construction problems, which may not affect the operation of the works, the characteristics of influents to or effluents from the works or the design hydraulic capacity of the works, the applicant shall ensure that the works are constructed in accordance with this certificate.
- (2) Changes in the construction/design of the works, required because of unforeseen construction problems, which may affect the operation of the works, the characteristics of influents to or effluents from the works or the design hydraulic capacity of the works, shall be documented by the Owner. No such change shall be made unless and until the Owner receives written approval of the Director.
- (3) Within 1 week prior to commencement of operation of the work, the Owner shall notify the District Officer in writing that the work has been constructed in accordance with this certificate.

8.0 NOTIFICATION OF CHANGES IN PROCESS OR MATERIALS

The Owner shall give notice to the Director of:

- (1) any plans to change the processes or materials forming a part of the works; and

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- (2) any plans to change the processes or materials used in the works or the Owner's enterprise serviced by the work but not referred to in this certificate or the Owner's application and supporting material, where the change may materially alter the quantity or quality of effluent either entering into or discharging from the works, or both;

and no such change shall be made unless and until the Owner receives the written approval of the Director.

9.0 ADVERSE IMPACT

The Owner shall take all reasonable steps to minimize any adverse impact to surface or ground waters resulting from non-compliance with the effluent requirements specified in this certificate including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge which is in non-compliance.

10.0 AS-CONSTRUCTED DRAWINGS

- (1) The Owner shall prepare within 6 months of substantial performance of the works a complete set of drawings showing the work as-constructed and shall amend the drawings from time to time to reflect all changes in or additions to the works.
- (2) The Owner shall maintain the as-constructed drawings, as amended from time to time, at the work for so long as it is in operation, and shall make them available for inspection by Ministry employees upon request.

11.0 APPROVAL OF DISTRICT OFFICER

In respect of any matter for which this certificate requires the approval of the District Officer, in the event the Owner disputes the District Officer's decision the Owner shall be entitled to refer the disputed matter to the Director, who shall, without further notice to the Owner or the requirement of any hearing, review the disputed matter and render a decision in lieu of the District Officer's decision.

12.0 FREEDOM OF INFORMATION

In accordance with the Freedom of Information and Protection of Individual Privacy Act this certificate and all reports prepared in accordance with the terms of this certificate and in the possession of the Ministry may be available for public inspection at the offices in which they are located.

13.0 OPERATIONS AND MAINTENANCE

- 1) The Owner shall ensure that at all times, the sewage works and related equipment and appurtenances which are installed or used to achieve compliance with this certificate are properly operated and maintained. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory process controls, including appropriate quality assurance and quality control procedures.
- 2) The Owner shall ensure that adequate equipment and materials are available for use in the event of upset conditions and equipment breakdowns in the works and spills of raw or processed materials, and the personnel are trained in its use and the methods and procedures to be employed.
- 3) The Owner shall prepare an operations and maintenance manual or amend the current manual prior to the commencement of regular operation of the works under this certificate and upon request shall make the manual available for inspection by Ministry personnel and shall upon request furnish an updated copy of the manual to the Ministry.
- 4) The Owner shall establish complaint procedures for receiving and responding to complaints including a reporting system as to which records, what steps were taken to determine the cause of complaint and corrective measures to alleviate the cause and prevent its reoccurrence.

14.0 EFFLUENT REQUIREMENTS

- 1) The Owner shall ensure that above approved work are designed, constructed and operated in such a manner and with such facilities as to ensure that the concentration and waste loading of materials as effluent parameters do not exceed the respective indicated values.

<u>Effluent Parameter</u>	<u>Effluent Concentration (mg/l)</u>	<u>Effluent Waste Loading (kg/d)</u>
BOD ₅	25	9.1 ^ā 13.6 [*]
Suspended Solids	25	9.1 ^ā 13.6 [*]
Total Phosphorus	1.0	0.4 ^ā 0.5 [*]

where: ā for extended aeration operation
* for contact stabilization operation

..... 8

- 2) Non-compliance with respect to effluent concentration for BOD₅ and Suspended Solids is deemed to have occurred when the average annual concentration for these parameters exceeds their respective indicated value in subsection 1.
- 3) Non-compliance with respect to effluent concentration for Total Phosphorus is deemed to have occurred when the average monthly concentration for total phosphorus exceeds the respective indicated effluent concentration value in subsection 1.
- 4) Non-compliance with respect to effluent waste loading for BOD₅, Suspended Solids and Total Phosphorus is deemed to have occurred when the average annual concentration multiplied by the average daily flow, for these effluent parameters, exceeds their respective indicated effluent waste loading value in subsection 1.

5.0 MONITORING

- 1) The Owner shall collect raw sewage and treated final effluent samples from the works at the frequency indicated and shall have them analyzed for the following parameters:

<u>Parameter</u>	<u>Type of Sample</u>	<u>Frequency</u>
BOD ₅	24-hour composite	biweekly
suspended Solids	24-hour composite	biweekly
Total Phosphorus	24-hour composite	weekly
Total Kjeldahl Nitrogen	24-hour composite	biweekly
Total Ammonium Nitrogen	24-hour composite	biweekly
Nitrate Nitrogen	24-hour composite	biweekly
Nitrite Nitrogen	24-hour composite	biweekly
Total Coliforms	grab	biweekly
Fecal Coliforms	grab	biweekly

- 2) Analytical and sampling protocols used to undertake the sampling and chemical analyses required in subsection 1 shall be in accordance with Schedule 2 and 3 of O. Reg 695/88 of the MISA program or the latest edition of "Standard Methods for the Examination of Water and Wastewater" as published by the U.S. Public Health Service.
- 3) The analytical results from the requirements of subsection 1 shall be reported to the District Officer within 90 days of collection of the samples or within such a period as deemed acceptable to the District Officer.

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16.0 EFFLUENT DISCHARGE DURING CONSTRUCTION

During the construction of the works approved by this certificate, the owner shall maintain an effluent dilution ratio of at least 50 to 1 for partially treated effluent being discharged from the works.

17.0 ANNUAL PERFORMANCE REPORT

- 1) The Owner shall prepare a performance report and submit this report to the District Officer on an annual basis with the submission being made no later than 30 working days following the termination of a calendar year. The first such report shall cover the period from the commencement of operation of the facility until the end of the first calendar year of operation. These reports shall contain, but not be limited to, the following:
 - (1) a comprehensive interpretation of the discharge loadings and concentrations data for the period of reporting and a comparison to any effluent quality criteria required by this certificate;
 - (2) an outline of any proposed sewage treatment measures to be completed over the next reporting period;
 - (3) an outline of the proposed sludge handling methods and disposal areas to be used over the next reporting period;
 - (4) an evaluation of the calibration and maintenance procedures conducted on all monitoring equipment; and
 - (5) an evaluation of the need for modifications to the sewage treatment facility to improve performance and reliability and to minimize upsets and bypasses.
- 2) All annual performance reports shall be submitted to the District Officer within the prescribed time periods and shall be accompanied by a signed certification statement from the author attesting to the accuracy of the information contained within.

18.0 REPORTING EMERGENCIES AND ABNORMAL SITUATIONS

- 1) The Owner shall ensure that, upon 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, such occurrence be immediately reported to the Spills Action Centre. In addition, within 10 working days of the occurrence, the Owner shall submit a full written report of the occurrence to the District Officer 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.

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2) The Owner shall ensure that, within 24 hours of the occurrence of any non-compliance regarding this certificate or operation of the works, report verbally to the District Officer, or his designate, the occurrence of the non-compliance. Also, a written report shall be submitted to the District Officer, within 5 working days of the discovery of the non-compliance, containing the following:

- 1) a description of the non-compliance and its cause;
- 2) the period of non-compliance, including exact dates and times;
- 3) if the non-compliance has not been corrected, the anticipated time period in which it is expected to continue; and
- 4) the steps to be taken or planned to reduce, eliminate and prevent the re-occurrence of the non-compliance.

THIS IS A TRUE COPY OF THE
ORIGINAL CERTIFICATE MAILED

ON JUL 26 1989


(Signed)

TO: Mrs. P.G. Rantz, Clerk
Village of Chalk River
P.O. Box 59
15 Main Street
Chalk River, Ontario
K0J 1J0

You are hereby notified that the conditional Certificate of Approval No. 3-0210-87-896, issued to you on July 20, 1989 for modifications to the existing Chalk River Water Pollution Control Plant in the Village of Chalk River, is hereby amended as follows:

The portion of the description of the approved works appearing on the certificate as follows:

"- four (4) variable speed chemical pumps each rated as follows:

- i) alum pump - 45 L/d
- ii) polyelectrolyte pump - 400 L/d
- iii) sodium carbonate pump - 35 L/d
- iv) hypochlorite pump - 140 L/d;

- one (1) FRP 18 m³ alum storage tank;

- one (1) FRP 350 L alum day tank;"

is hereby replaced with the following description:

"- four (4) variable speed chemical metering pumps, rated as follows:

- i) coagulant pump - 45 L/d
- ii) polyelectrolyte pump - 400 L/d
- iii) sodium carbonate pump - 35 L/d
- iv) hypochlorite pump - 140 L/d;

- one (1) FRP 18 m³ capacity coagulant storage tank;

- one (1) FRP 350 L capacity coagulant day tank;"

The reasons for the above amendments to the certificate are as follows:

The description has been modified to give the plant operator the flexibility to use coagulants other than alum to achieve acceptable effluent quality under seasonally changing process conditions.

... of which notice served upon me will the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 63 of the Ontario Water Resources Act, R.S.O. 1980, C. 361, as amended, 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.

In addition to these statutory requirements, the Notice should include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
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 should be served upon:

The Secretary,
Environmental Appeal Board,
112 St Clair Avenue West,
5th Floor,
Toronto, Ontario
M4V 1N3

The Director,
Section 24, OWR Act,
Ministry of the Environment,
250 Davisville Avenue, 3rd Floor,
Toronto, Ontario
M4S 1H2


This is to certify that after due enquiry the proposed works have been approved under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this 17th day of October, 1991.



W. Gregson, P. Eng.
Director
Section 24, O.W.R. Act

cc: Mr. B. Ward, MOE SE, Reg. Dir.
Mr. D.G. Currie, Utility Operations Manager, MOE SE Region
MT/fn

THIS IS A TRUE COPY OF THE
ORIGINAL NOTICE MAILED
ON OCT 21 1991


SIGNED

APPENDIX C

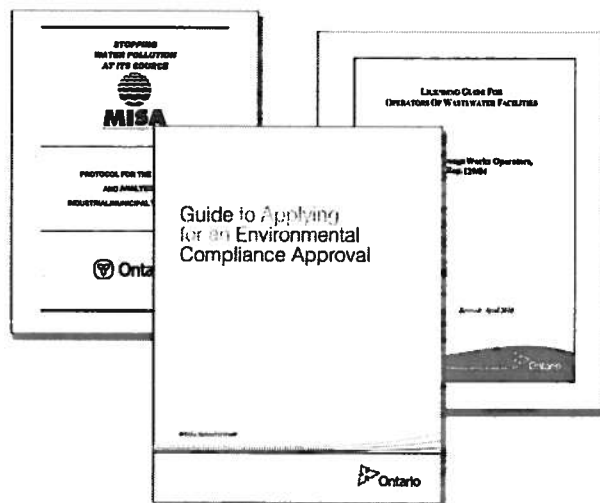
STAKEHOLDER SUPPORT

Helpful Resources for Municipal Wastewater Owners and Operators

Many useful materials are posted on the **Ministry of the Environment's Resources website** to help in the operation of your wastewater system.

Below is a list of key materials frequently used by owners and operators of municipal wastewater systems. To read or download these materials, go to the **Ministry of the Environment's Resources website** and search in the resources section by publication number.

Contact the Public Information Centre if you need assistance or have questions at 1-800-565-4923/416-325-4000 or picemail.moe@ontario.ca.



	PUBLICATION NUMBER	PUBLICATION TITLE
Environmental Compliance	2724e01	Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater
	8527e	Guide to Applying for an Environmental Compliance Approval
F-Series	1584e	F-5 Levels Of Treatment For Municipal And Private Sewage Treatment Works Discharging To Surface Waters
	2250e	F-8 Provision And Operation Of Phosphorus Removal Facilities At Municipal, Institutional And Private Sewage Treatment Works
	3074e	F-10 Sampling And Analysis Requirements For Municipal And Private Sewage Treatment Works (Liquid Waste Streams Only)
Other	3303e	Water Management, Policies, Guidelines: Provincial Water Quality Objectives of the Ministry of the Environment
	7699e	Licensing Guide for Operators of Wastewater Treatment Facilities

ontario.ca/drinkingwater

