



Ministry
of the
Environment Ministère
de
l'Environnement

Ontario

**CERTIFICATE OF APPROVAL
MUNICIPAL SEWAGE
NUMBER 3-0046-93-006
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TO: THE CORPORATION OF THE TOWNSHIP OF ST. EDMUND'S
Box 70
Tobermory, Ontario
N0H 2R0

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

Expansion and upgrading of the existing Tobermory Sewage Treatment Facility located in Lot 49, Concession 1, West of the Bury Road in the Township of St. Edmunds to treat an average summer day design flow of 625 m³/d as follows:

Sewage Pumping Station

Upgrading of existing sewage pumping station located on Lot 7, Carlton Street - South Side, Townplot of Bury, by replacing existing pumps with two (2) new pumps, each rated at 18.3 L/s;

Sewage Treatment Plant

- Installation of a new 56 kW mechanical surface aerator in the existing aeration cell;
- Construction of a 10,800 m³ secondary aeration cell with tapered coarse bubble diffused aeration, a quiescent settling zone and effluent recycle to the primary aeration cell. The coarse bubble diffused aeration system will have one (1) duty and one (1) stand-by blower each rated with a firm capacity of 193 L/s at approximately 38 kPa;
- Construction of three (3) additional exfiltration cells with a combined minimum rated capacity of 317 m³/d and approximately 13,750 m² surface area;
- Construction of one (1) back-up exfiltration cell with a minimum rated capacity of 625 m³/d and approximately 21,875 m² surface area;

together with associated appurtenances, piping, electrical and control systems all in accordance with Environmental Study Report dated 16th November 1992 prepared by Knox Martin Kretch Limited, Consulting Engineers.

You are hereby notified that this approval is issued to you subject to the following terms and conditions outlined below:

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TERMS AND CONDITIONS

GENERAL

1. For the purpose of this Certificate of Approval:
 - a. "the Director" means any Ministry employee within the Environmental Planning and Prevention Division of the Ministry appointed by the Minister pursuant to Section 5 of the Ontario Water Resources Act as a Director for the purposes of Sections 7, 52, 53, 54, 55, and 56 of said Act;
 - b. "the Regional Director" means the Regional Director of the Southwestern Region of the Ministry of the Environment and Energy;
 - c. "the District Officer" means the District Officer of the Owen Sound District Office of the Ministry of the Environment and Energy's Southwestern Region;
 - d. "Certificate" means a Certificate of Approval issued in accordance with Section 53 of the Ontario Water Resources Act;
 - e. "Ministry" means the Ministry of the Environment and Energy for the Province of Ontario;
 - f. "Owner" means The Corporation of the Township of St. Edmunds and includes its successors and assignees;
 - g. "operating authority" means the Owner or the designated agent of the Owner;
 - h. "average flow" means the total flow to the sewage works during the period of operation upon which the report is based, divided by the number of days in the period;
 - i. "grab sample" means an individual sample of sufficient size collected at a randomly selected time;
 - j. "works" means the facility described in the application, this certificate and in the supporting documentation, to the extent approved by this certificate;
 - k. "BOD₅" means five day total biochemical oxygen demand measured in an unfiltered sample;
 - l. "kPa" means kilopascal(s);
 - m. "kW" means kilowatt(s);
 - n. "L/s" means litre(s) per second;

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- o. "L/d" means litre(s) per day;
 - p. "L/hour" means litre(s) per hour;
 - q. "m" means metre(s);
 - r. "mm" means millimetre(s);
 - s. "m²" means square metre(s);
 - t. "m³" means cubic metre(s);
 - u. "m³/d" means cubic metre(s) per day;
 - v. "mg/L" means milligram(s) per litre;
 - w. "summer" means July and August.
2. Requirements specified in this Certificate are minimum requirements under Section 53 of the Ontario Water Resources Act, and do not abrogate the need to take all steps to avoid violating the provisions of applicable legislation.
 3. The requirements of this Certificate are severable. If any requirement of this Certificate, or the application of any requirement of this Certificate to any circumstances, is held invalid, the application of such requirement to other circumstances and the remainder of the Certificate shall not be affected thereby.
 4. 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. The Owner shall furnish to the Regional Director any information which the Regional Director may request pursuant to Section 60 of the Ontario Water Resources Act, and copies of any records required to be kept by this Certificate.
 6. The Owner must forthwith on request allow Ministry authorized representatives including provincial officers to carry out inspections authorized by Sections 15, 15(2) or 15(3) of the Ontario Water Resources Act, Sections 156, 157 and 158 of the Environmental Protection Act or Sections 19 or 20 of the Pesticides Act of any place, other than any room actually used as a dwelling to which this Certificate of Approval relates.

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7. The Owner shall prepare and make available for inspection by the Ministry employees, upon request, a complete set of drawings within six (6) months of commissioning of the sewage works which drawings shall show the sewage works as constructed at that time.

A complete set of "as constructed drawings", incorporating any amendments made from time to time, shall be kept by the Owner at the Control Building of the sewage works as long as the sewage works is kept in operation.

8. The Owner shall notify the Director and the Regional Director in writing of any of the following changes within thirty (30) days of the change occurring:
- change of Owner or operating authority or both;
 - change of address or address of the new Owner.

OPERATION AND MAINTENANCE

9. The Owner shall ensure compliance with the following Operation and Maintenance Conditions:

- 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 and process controls.
- Prior to commencement of operation of the works, the Owner shall prepare contingency plans, establish procedures, maintain adequate equipment and materials for dealing with emergencies, upset conditions, equipment breakdowns in the sewage works, plus spills or overflows of raw or partly treated sewage, sludge or chemicals into or out of the sewage works to prevent or minimize unacceptable gas and odour emissions or liquid discharges or both into the natural environment.
- The Owner shall establish notification procedures to be used to contact the District Officer and other relevant authorities in the case of an emergency situation and the measures taken to deal with it.
- The Owner shall prepare an operations and maintenance manual prior to the commencement of regular operation of the sewage works and upon request shall make the manual available for inspection by Ministry personnel and shall upon request furnish a copy to the Ministry.

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- e. The Owner shall establish complaint procedures for receiving and responding to complaints including a reporting system which records what steps were taken to determine the cause of complaint and corresponding measures taken to alleviate the cause and prevent its recurrence.

PERFORMANCE

10. **Effluent Objectives**

The owner shall design, construct and operate the sewage treatment works with the objective that the secondary aeration cells produce an effluent quality of 50 mg/L of BOD₅ and 50 mg/L of Suspended Solids.

11. a. The sewage works has been approved to treat sewage at an average summer flow of 625m³/d.
- b. For the purposes of this Certificate and Subsection 107 (3) of the Ontario Water Resources Act, the introduction of sewage flows in excess of the average daily flow shown in subsection (a) for any consecutive period of time greater than one year is not approved under this Certificate.
- c. The Owner shall install, maintain and operate a sufficient number of flow measurement devices, calibrated at regular intervals not exceeding one year to ensure their accuracy to within plus or minus 5% of the full scale reading of the measuring devices, in order to measure:
- i. the quantity of sewage being conveyed to and through the sewage treatment plant;
- d. The flow data generated in accordance with subsection (c) above shall be deemed to be conclusive for the purposes of determining compliance with and enforcing this Certificate.
12. a. Any diversion of flow from any portion of the sewage works is prohibited, except:
- i. where it is unavoidable in preventing loss of life, danger to public health, personal injury or severe property damage, or
- ii. where it is necessary for the purpose of essential maintenance of the sewage works to ensure their efficient operation, provided that the requirements set out in Condition No. 11 will not be exceeded and the District Officer has given a prior written approval for the bypass, or
- iii. where the Regional Director has specifically approved it in writing.

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- b. The Owner shall notify the District Officer:
- i. for planned bypasses, at least 10 days prior to the date of the bypass or otherwise on the earliest date possible;
 - ii. for unplanned bypasses, forthwith;
 - iii. the notice in either case shall include information with respect to the anticipated adverse effects on the natural environment and the duration of the bypass.
- c. The Owner shall record the time, location, duration and estimated quantity of each bypass event along with the reasons for the event.

MONITORING AND REPORTING

15. MONITORING

1. The operating authority shall carry out the groundwater sampling program detailed below on a yearly basis:

Spring (May) and Fall (October)

A complete groundwater sampling program of all thirty (30) on-site observations wells as identified on Drawing 2, Proposed Site Plan (File Ref. 1686.02-A-2) dated December 1992;

Summer (August)

A limited groundwater sampling program of the following on-site observation wells:

OW-6S	OW-9I
OW-6I	OW-9D
OW-6D	OW-10S
OW-7S	OW-11S
OW-9S	OW-12S

2. The groundwater samples shall be analyzed for the following chemical parameters for all monitoring events:

Alkalinity	Nitrate
Conductivity	Calcium
Free Ammonia	Hardness
Phenols	Sodium
pH	Dissolved Organic Carbon
Chloride	Organic Nitrogen
Sulphate	Total Kjeldahl Nitrogen
Nitrite	Phosphorous-Dissolved Reactive *
Magnesium	Total Phosphorous *
Iron	

* Shallow wells only

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Every three (3) years, the wells shall be sampled in October for:

Aluminum	Copper
Barium	Lead
Cadmium	Manganese
Chromium	Zinc

3. Effluent sampling of the outlet of the secondary aeration cells shall take place:
 1. during the months of March, June, July, August and October of each year and consist of:
 2. BOD₅, Total Solids, Total Phosphorus, Total Kjeldhal, Nitrogen, Ammonia-N, Nitrite-N and Nitrate-N.
4. The Operator shall carry out on-site tests each week from May through September of each year for pH and Dissolved Oxygen and maintain records of the test results.
5. Representative sludge samples shall be collected in April each year where sludge haulage is expected and analyzed for:

Total Solids	Free Ammonia
Total Phosphorus	Nitrate-N
Arsenic	Mercury
Cadmium	Molybdenum
Cobalt	Nickel
Chromium	Selenium
Copper	Lead
Zinc	
6. Sampling locations shall be established to the satisfaction of the District Officer prior to commencement of operation of the works. Sampling locations and parameters may only be changed or abandoned and new locations or parameters may be added following commencement of operations if, in the opinion of the District Officer, it is necessary to do so to ensure representative samples are being collected.
14. Analytical results from Condition No. 13 shall be reported by such means and frequency as requested by the District Officer.
15. The Owner shall prepare and submit a performance report to the District Officer on an annual basis, and the submission shall be made no later than 90 days following the end of each calendar year. The first such report shall cover the period from the commencement of operation of the works until the end of the calendar year in which the works is operated. The reports shall contain, but shall not be limited to, the following information in a format acceptable to the District Officer:

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- a. a summary of all monitorry and compliance reports submitted in the reporting period, including an overview of the success and adequacy of the sewage treatment program;
 - b. a comprehensive interpretation of all monitoring data and analytical data collected relative to the works during the reporting period.
 - c. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the works;
 - d. a description of any operating problems encountered and corrective actions taken during the reporting period;
 - e. a summary of any proposed alteration, extension or replacement in the process or operation of the works to be completed over the next reporting period which may require approval under the Ontario Water Resources Act;
 - f. a tabulation of the volume of sludge generated in the reporting period and an outline of anticipated volumes to be generated over the next reporting period;
 - g. an outline of the sludge handling methods and disposal areas to be utilized over the next reporting period;
 - h. an evaluation of the calibration and maintenance procedures conducted on all monitoring equipment;
 - i. an evaluation for the need for modifications to the works to improve performance and reliability and to minimize upsets and bypasses.
16. No portion of the works shall be constructed and no tenders for construction accepted on any portion of the works until final plans, specifications and supporting data are submitted to and approved by the Director.

You are hereby notified that Certificate of Approval No. 3-0046-93-006 has been issued to you subject to the terms and conditions outlined therein.

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The reasons for the imposition of these terms and conditions are as follows:

1. Condition No. 1 is included to define terms used in the Certificate.
 2. Condition No. 2 is included to emphasize that the issuance of the approval does not diminish the duty of the Owner to use all reasonable care in the construction, maintenance and operation of the sewage works, including a duty to mitigate any adverse impacts resulting from any action which results in non-compliance with this Certificate of Approval.
 3. Condition Nos. 3 and 4 are included to clarify that the requirements as set out in this Certificate are severable and that non-compliance with the conditions constitutes a violation of the Ontario Water Resources Act.
 4. Condition No. 5 & 6 are included to allow the Regional Director to obtain the necessary information related to the construction, operation and maintenance of the sewage works.
 5. Condition Nos. 7 and 8 are included to ensure that the Ministry Records are kept up to date with respect to the works and to ensure that subsequent owners are made aware of this Certificate.
 6. Condition No. 9 is imposed to ensure that the sewage works are properly operated and maintained and that the operating staff are equipped to deal with contingency and/or emergency situations.
 7. Condition Nos. 10 & 11 are imposed to minimize the environmental impact to the ground water.
 8. Condition Nos. 12, 13, 14 and 15 are imposed to require the Owner to demonstrate on a continual basis that the quality and quantity of the effluent from the approved works is consistent with the design objectives and that the approved works does not cause any impairment to the ground water.
 9. Condition No. 16 is imposed to make the Owner aware that the Director approves in principle the proposed works and is of the opinion that they may be carried out on the basis of sound engineering and environmental principles, notwithstanding that sufficient detailed designs of the works have not been submitted to the Director for a final technical determination.
- * This Certificate of Approval should be read in conjunction with Certificate of Approval No. 3-1207-73-006 dated November 9th, 1973 and Certificate of Approval No. 3-0310-82-917 dated August 1st, 1991

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You may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter O.40, 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.

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 sewage works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary,
Environmental Appeal Board,
112 St. Clair Avenue West,
Suite 502,
Toronto, Ontario.
M4V 1N3

AND

The Director,
Section 53, Ontario Water Resources Act,
Ministry of the Environment and Energy,
250 Davisville Avenue, 3rd Floor,
Toronto, Ontario.
M4S 1H2

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

DATED AT TORONTO this 24th day of February 1993

THIS IS A TRUE COPY OF
THE ORIGINAL CERTIFICATE
SIGNED BY
W. GREGSON, P. ENG.
MAILED ON _____
BY _____

MAR 1 1993
pm

NS/pm
Attn:C. Wyonch, Clerk, Twp of St. Edmunds
cc: D. A. McTavish, MOE SW, Reg.
KMK Cons. Ltd.