781998 Ontario Inc.

PROPOSED CLOSURE PLAN
INDUSTRIAL LANDFILL

Mayer Waste Disposal Site
Township of West Hawkesbury, Ontario

MARCH 1995
REF. NO. 5345 (9)
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CONESTOGA-ROVERS & ASSOCIATES

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March 16, 1995

Reference No. 5345

Mr. Brian Ward, P. Eng.
Regional Director
Ministry of Environment and Energy
Kingston Regional Office
133 Dalton Avenue
Kingston, Ontario K7L 4X6

VIA COURIER

Dear Mr. Ward:

Re: Proposed Closure Plan - Industrial Landfill
Mayer Waste Disposal Site, Township of West Hawkesbury, Ontario

Please find enclosed a copy of the Proposed Closure Plan report and draft Part V Environmental Protection Act application in support for the amendment of Provisional Certificate of Approval No. A471507. This Certificate of Approval was issued by the Ministry of Environment and Energy (MOEE) on November 7, 1983 for the Industrial Landfill at the Mayer Waste Disposal Site.

The enclosed Closure Plan provides a design for continued landfilling at the Industrial Landfill of the Mayer Waste Disposal Site to proposed final contours that are suitable for the Landfill's closure. As part of the Closure Plan approval process, a public meeting was conducted on February 1, 1995 to discuss the above matters with a newsletter circulated to affected parties on February 20, 1995. A public consultation summary document is being prepared by Conestoga-Rovers & Associates (CRA) on behalf of 781998 Ontario Inc. and will be submitted to the MOEE along with a final application by March 31, 1995.

Following your review of the enclosed draft application, CRA will submit the final application to the MOEE.

It is trusted that the enclosed provides sufficient information to permit the MOEE's review of the Proposed Closure Plan. Should you have any questions or comments concerning this submission, please do not hesitate to contact our office .

Yours very truly,

CONESTOGA-ROVERS & ASSOCIATES

Gregory D. Ferraro, P. Eng.
FBA/cf

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1.0 INTRODUCTION

1.1 GENERAL

A Proposed Remediation Plan for the Mayer Waste Disposal Site (consisting of the Domestic Landfill and the Industrial Landfill) was prepared and submitted in July, 1994 to the Ministry of Environment and Energy (MOEE) in response to Section 2.4 of the February 19, 1993 Control Order issued to 781998 Ontario Inc. (Gilles R. Mayer). The Remediation Plan addresses the environmental impacts identified in the Phase II Environmental Investigation Final Report (CRA, May 20, 1994); provides a remedial Site design suitable for potential Site closure; identifies regulatory approvals required to be obtained; and provides an implementation schedule for the proposed remedial works and for making application for the identified approvals. The final contours developed for the Industrial Landfill were prepared to provide the necessary contouring for suitable closure of the Landfill and allow for continued use of the Landfill during the remediation period. Details of the Proposed Remediation Plan for both Landfills are included in a report entitled "Proposed Remediation Plan - Mayer Waste Disposal Sites, Township of West Hawkesbury, Ontario, July, 1994".

In response to the Proposed Remediation Plan, the MOEE identified the requirement for an application to be made for an amendment to existing Certificate of Approval No. A471507 under Section 27 of the Environmental Protection Act (EPA) to approve the additional capacity resulting from the final contours proposed for the Industrial Landfill. This application would be subject to a discretionary hearing under Section 32 of the EPA.

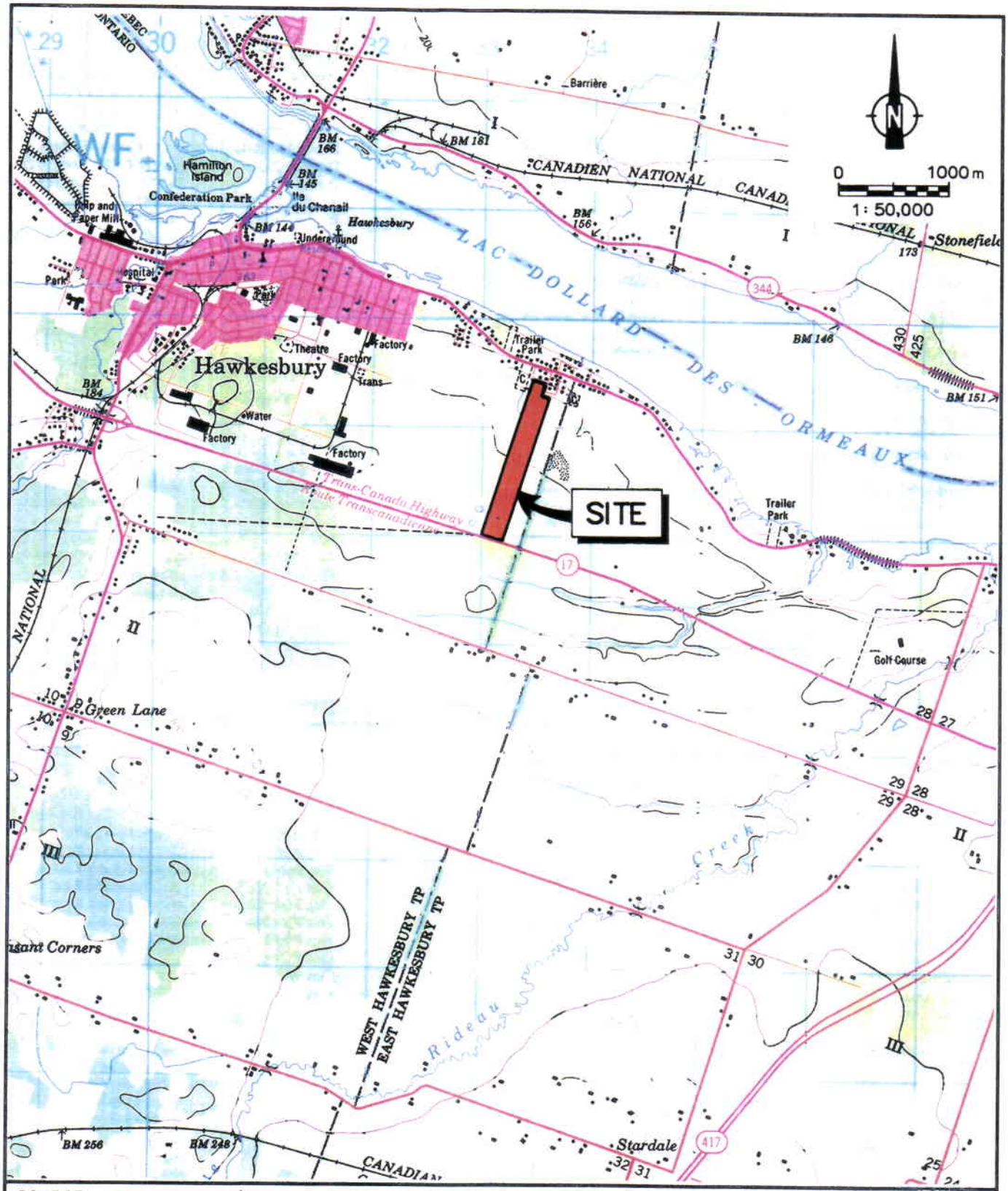
This report therefore addresses the above requirement and presents a Closure Plan for the Industrial Landfill as a component of the Proposed Remediation Plan for the Mayer Waste Disposal Site. The Closure Plan has been prepared in accordance with the November, 1993 MOEE Landfill Guidance Manual and the remedial site works identified in the Proposed Remediation Plan.

1.2 SITE DESCRIPTION

The Mayer Waste Disposal Site is presently owned by 781998 Ontario Inc. and is located immediately east of the Town of Hawkesbury along Highway 17 within the Township of West Hawkesbury (Figure 1.1). The Site consists of two distinct landfills which have historically operated under separate Provisional Certificates of Approval: a Domestic Landfill (Provisional Certificate of Approval No. A471506 issued on August 20, 1980) and an Industrial Landfill (Provisional Certificate of Approval No. A471507 issued on November 7, 1983). Copies of the original Provisional Certificates of Approval are provided in Appendix A.

The Domestic Landfill, which has been in operation since 1955, consists (as per the original Provisional Certificate of Approval) of approximately 6 acres (2.4 hectares) on the south portion of the Mayer Waste Disposal Site. The Domestic Landfill is legally described as encompassing Part of the East Half of the West Half of Lot 1, Concession 1 in the Township of West Hawkesbury, County of Prescott. The southern half of the original parcel in which the Domestic Landfill is situated consists of approximately 18.425 acres (7.5 hectares). The original Provisional Certificate issued for the Domestic Landfill stipulated the disposal of domestic waste, commercial waste, 5 percent non-hazardous solid industrial waste (limited to fence posts, wire, etc. from agriculture and metal scraps, broken glass) and 5 percent other wastes (limited to construction debris, rubber tires and white goods). Conditions of the original Provisional Certificate included orderly deposition of wastes in the fill area, compaction and adequate placement of daily cover in the fill area or as directed from time to time by the Director of the MOEE Southeastern Region. Additionally, a rodent control program was to be initiated at the site.

At the present time, the Domestic Landfill operates under amended Provisional Certificate of Approval No. A471506 dated November 18, 1994 (Appendix A). This amended Provisional Certificate expires on April 17, 1996.



SOURCE: NTS MAP 31 G/10, HAWKESBURY

figure 1.1
SITE LOCATION
CLOSURE PLAN
MAYER WASTE DISPOSAL SITE
Township of West Hawkesbury, Ontario

CRA

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The Industrial Landfill, which is located north of the Domestic Landfill, consists (as per the original Provisional Certificate of Approval) as encompassing approximately 8.896 acres (3.6 hectares) and has been in operation since November, 1983. The Industrial Landfill is legally described as encompassing all of that portion of Part of Lot 1, Broken Front Concession and Concession 1, Township of West Hawkesbury designated as Part 1 on Reference Plan 46R-1826 excepting the Road Allowance between the Broken Front Concession and Concession 1. The northern half of the original parcel in which the Industrial Landfill is situated consists of approximately 17.187 acres (6.9 hectares). The original Provisional Certificate issued for this site stipulated the disposal of 100% non-hazardous solid industrial wastes limited to glass, nylon, wood and steel.

The total property area originally containing the Domestic Landfill and the Industrial Landfill consists of approximately 35.612 acres (14.4 hectares). In addition to these lands, adjacent lands to the east of the Domestic and Industrial Landfills were acquired by 781998 Ontario Inc. on June 5, 1992 from Carillon Gardens (Hawkesbury) Ltd., specifically, those lands encompassing Part of Lot 1 and Commons Lot, Broken Front Concession and Concession 1, Township of West Hawkesbury, County of Prescott. These lands form an additional area of approximately 42.817 acres (17.3 hectares), thus bringing the total land area owned by 781998 Ontario Inc. at present to approximately 78.129 acres (31.6 hectares). Transfer of underground water rights on adjacent lands further to the east on lands owned by Carillon Gardens (Hawkesbury) Ltd. was also deeded to 781998 Ontario Inc. on June 5, 1992.

Subsequent to the amendment of Certificate of Approval No. A471506, a legal survey was completed and submitted to the MOEE on January 27, 1995. The legal survey is provided in Appendix B. The Waste Disposal Site presented in the legal survey is 24.41 hectares and consists of Part 1 (Instrument No. 69187), Part 2 (Instrument No. 69186), Part 3 (Instrument No. 81286) and Part 4 (Instrument No. 81286). The boundaries established by the survey plan coincide with the limits of the Site (including the buffer zones and contaminant attenuation zone [CAZ]) provided in the Proposed Remediation Plan (Plan 2, Proposed Site Design). The CAZ is

contained within the northern portion of Part 2 as well as Part 3 and 4 of the survey. The survey plan will be registered on the Deed of Lands pertaining to Parts 1, 2, 3 and 4.

2.0 EXISTING CONDITIONS

2.1 TOPOGRAPHIC CONDITIONS

Existing conditions at the Industrial Landfill are presented on the enclosed Plan 1. The contours for the existing Industrial Landfill area are based on a total station survey completed by CRA in November, 1994 and an aerial survey completed by Base Mapping Co. Ltd. in May, 1990.

The Site is topographically characterized by the landfill mounds of both the Domestic and Industrial Landfills, which are separated by an eastward flowing creek. Non-landfilled portions of the Site are characterized generally by remnant aggregate extraction pits and/or undeveloped sections of land. The undeveloped portions of the Site are further characterized by the presence of dense, low to medium canopy, deciduous vegetation, particularly to the east and north.

2.2 HYDROGEOLOGIC CONDITIONS

As discussed in the Phase II Environmental Investigation Final Report, two overburden aquifers were generally identified beneath the Mayer Waste Disposal Site. An upper unconfined (water table) aquifer exists within the surficial sands and a lower confined to unconfined overburden aquifer exists within sands at depth. The two prescribed aquifers are separated by a clay deposit of 6 m average thickness and which act as an aquitard of very low hydraulic conductivity. Deep stratigraphy at the Site indicates the presence of a bedrock aquifer. The surficial sand and underlying clay beneath the Industrial Landfill are absent due to probable excavation of the material during aggregate mining. The overall groundwater flow in the lower overburden aquifer generally occurs in a northwesterly to northeasterly direction.

A detailed description of the hydrogeologic conditions at the Site is presented in the Phase II Environmental Investigation Final Report submitted to the MOEE in May, 1994.

2.3 ENVIRONMENTAL STATUS

The conclusions resulting from the environmental investigations conducted at the Site summarize the environmental status of both the Domestic and Industrial Landfills and are discussed below:

1. A water table aquifer underlies the Domestic Landfill and adjacent property, and groundwater flow occurs in a general northeasterly direction as based on existing water level data.

2. Degradation of groundwater quality within the water table aquifer has occurred downgradient of the Domestic Landfill as based on water quality data obtained to date. Chloride levels measured at downgradient monitoring well OW7B-94 exceed the maximum allowable of 135 mg/L according to the MOEE Reasonable Use Criteria (RUC). Chloride levels measured at a further downgradient monitoring well OW4B-93 also exceeded the RUC criteria twice out of the four monitoring events.

3. Acceptable levels of chloride and other parameters were measured at OW5B-94 and OW12-94 located downgradient at the eastern boundaries of the Site, and at OW6B-94 located further downgradient of the Domestic Landfill and immediately east of the Site. As such, it has been determined that the chloride levels at the downgradient adjacent property boundary meet the maximum allowable level according to the RUC. Thus, a downgradient groundwater attenuation zone has been established at the Site's eastern boundaries.

4. A clay aquitard is present beneath the water table aquifer which underlies the Domestic Landfill. This aquitard apparently is not present beneath the majority of the Industrial Landfill, but a silt or sand till occurs at depth beneath the majority of the Mayer Waste Disposal Site.

5. Groundwater flow within the lower overburden aquifer occurs in a general northwesterly to northeasterly direction. No significant degradation of groundwater quality has occurred within the lower overburden aquifer adjacent to and downgradient of the Domestic Landfill nor north of the Industrial Landfill. The measured chloride levels within the lower overburden aquifer situated downgradient of the Domestic and Industrial Landfills currently meets the maximum allowable according to the RUC.

6. The quality of groundwater within the bedrock aquifer to the northeast of the Industrial Landfill has not been impacted by the existing landfilling operations.

7. The quality of groundwater in private domestic wells completed within the overburden or bedrock has not been impacted by landfilling operations.

8. Minor degradation of the quality of surface water for selected metals within an on-Site drainage ditch is occurring downstream of the landfilled areas within the on-Site buffer zones.

9. Minor degradation of the quality of surface water for selected VOCs within the on-Site drainage ditch is occurring upstream of the Mayer Waste Disposal Site, suggesting an off-Site source located to the west.

Being investigated by MOEE

10. Potential gas migration pathways exist in the surficial granular soils in the southern portion of the Domestic Landfill. No methane gas was encountered in the granular soils to date during the monitoring events.

The Proposed Remediation Plan identified the necessary actions required to mitigate and manage the above-noted environmental impacts. Some of these items are directly related to the Industrial Landfill closure program and are discussed herein.

3.0 CLOSURE PLAN CONCEPT

The proposed final contour plan for the Industrial Landfill is included as Plan 2 of this report. The proposed final contours have been developed to allow for continued use of the Industrial Landfill during the period required to implement the remedial Site works (closure period). The contours show vertical expansion over the total Industrial Landfill. The design concept for the Closure Plan of the Industrial Landfill is based on the following criteria and rationale:

- Remediate the Industrial Landfill by providing adequate buffer zones and landfill side slopes;
- Provide final contours that will minimize leachate production and are suitable for closure of the Industrial Landfill;
- Design and construct final cover which will ensure the long-term post-closure integrity of the Industrial Landfill with respect to any emissions to the environment;
- Design and implement a surface water management plan and drainage control system;
- Implement a leachate management plan by establishing a contaminant attenuation zone; and
- Implement long-term environmental monitoring systems for surface water, groundwater and landfill gases.

All volume and remaining Site life calculations completed for the Industrial Landfill are based on the most recent total station survey completed in November, 1994. The estimated waste generation rates for the closure period are provided in Section 4.0 of this report. Landfill volumes including the remaining Industrial Landfill capacity using the proposed final contours and corresponding soil and refuse volumes are also presented in Section 4.0. Calculations for the estimation of the remaining Site life of the Industrial Landfill are presented and discussed in Section 5.0.

Discussions on establishment of buffer zones and a contaminant attenuation zone and their requirements are presented in Sections 6.0 and 7.0, respectively.

A surface water management plan to minimize the impact of stormwater flow from the Mayer Waste Disposal Site is presented in Section 8.0 of this report. Section 9.0 presents the proposed landfill gas management plan which covers the entire Mayer Waste Disposal Site. Section 10.0 provides a description of the final cover and miscellaneous remedial site works (closure works) which will be carried out during the closure period and their implementation schedules. The long term monitoring program for groundwater, surface water and landfill gas monitoring is presented in Section 11.0.

4.0 VOLUME CALCULATIONS

4.1 LANDFILL VOLUMES

The total volume available for landfilling was calculated by comparing the contours of the November, 1994 total station survey to the proposed final contours of the Industrial Landfill, as illustrated on the enclosed Plan 2.

All volume calculations were completed using the computer program Civil Soft-Highway Design Program (HDP) which utilizes the "average end area method". A total of 14 cross-sections were developed through the Industrial Landfill (stations). The HDP uses cross-sections to calculate the cross-sectional area at each station. The volume available is determined by multiplying the average change in cross-sectional area between adjacent stations by the distance between the stations. The program provides volume results described as cut volumes and fill volumes. Cut volumes are obtained when the existing contours in some areas of the Site are at higher elevations than the proposed final contours. Fill volumes are obtained when the existing contours are at lower elevations than the proposed final contours.

Based on the proposed final contours for the Industrial Landfill, the total available volume between the November 7, 1994 contours and the proposed final contours is approximately 63,000 m^3. It is estimated that regrading the west side of the Industrial Landfill will generate approximately 6,000 m^3 of excavated material. It should be noted that a portion of the 6,000 m^3 will likely consist of inert fill (clean soil or other), which will be segregated and stockpiled on the Industrial Landfill for subsequent use as daily cover soil. Using a conservative assumption, that only 10 percent of the excavated material is recoverable as daily cover soil, the total volume of waste generated from the Industrial Landfill excavation and regrading works will reduce from 6,000 m^3 to 5,400 m^3 (i.e. 6,000 m^3-600 m^3).

Based on an annual landfill volume consumption rate of 10,000 m^3, the Industrial Landfill volume consumed from November 7, 1994

to December 31, 1994 was 1,500 m^3. The annual consumption rate determination is presented in Section 5.0 of this report. The landfill final cover material will consume an additional 22,500 m^3 of the available air space. Therefore, as of January 1, 1995, the available Industrial Landfill volume for the disposal of non-hazardous solid industrial waste and daily cover soil will therefore be reduced from 63,000 m^3 to 33,600 m^3 (i.e. 63,000 m^3 - 5,400 m^3 - 1,500 m^3-22,500 m^3).

4.2 REFUSE VOLUMES

As noted in Section 4.1 of this report, the total volume of landfilling remaining to the top of waste contours as of January 1, 1995 is approximately 33,600 m^3. Based on a design refuse to daily cover soil ratio of 4:1, the available landfill volume provides for approximately 27,000 m^3 of refuse as of January 1, 1995.

4.3 SOIL VOLUMES

The proposed final contours shown on Plan 2 provide for the completion of the Industrial Landfill with a 0.7 m depth of low permeability cover. The final cover will be constructed of a 0.6 m low permeable soil layer beneath a 0.1 m layer of vegetated topsoil. Details of the final cover construction are presented on Plan 2.

To complete all slopes of the Industrial Landfill with final cover, the total volume of low permeable clayey soil and topsoil required is estimated to be 19,300 m^3 and 3,200 m^3, respectively. The final cover soil will be obtained from the excess low permeable clay soil available from the Lachute Landfill Site in Lachute, Quebec.

Based on the calculation provided in Section 4.2, a daily cover soil volume of 6,720 m^3 is required to complete the Industrial Landfill to the proposed final contours. The potential sources of daily cover include:

- reclamation of inert fill during the Industrial Landfill regrading and excavation works;
- available surplus material within the buffer zones and the contaminant attenuation zone at the Site; and
- imported miscellaneous fill to the Site.

5.0 SITE LIFE

To determine the remaining Site life of the Industrial Landfill, historic landfill consumption rates have been estimated. Volume calculations at the Industrial Landfill between the January 1994 and November 1994 period were completed. The calculations indicate a cumulative volume of cut of approximately 7030 m^3 and a cumulative volume of fill of 8060 m^3. Generally, the net consumed landfill volume would represent the difference between the cumulative volume of fill and the cumulative volume of cut which, in this case, would be 1030 m^3 (i.e. 8060 m^3 - 7030 m^3). However, after further detailed review of the areas where cut generally occurred, it appears that most cuts occurred on the southeast side of the Industrial Landfill where overburden soils exist. These soil volumes have been mined for use as cover soil for the Domestic Landfill and therefore are not included in the volume calculations for determining consumption rates. With this noted, the consumed volume of the Industrial Landfill from January, 1994 to November, 1994 is determined to be 8060 m^3, which results in approximately 10,000 m^3 annually.

The intent of the application for amendment of original Provisional Certificate of Approval No. A471507 at the Industrial Landfill is to extend the current landfilling operations until the proposed final contours are reached and proper closure of the Industrial Landfill is achieved.

The remaining Site life for the Industrial Landfill was calculated for the Proposed Closure Plan contours provided on Plan 2. As outlined in Section 4.1, the available volume for the disposal of refuse and daily cover soil at the Industrial Landfill as of January 1, 1995 is approximately 33,600 m^3.

The annual consumption rate for the Industrial Landfill Site is presently estimated at 10,000 m^3/year as outlined above. The volume of the Industrial Landfill Site estimated to be consumed during the closure period is calculated to be 33,600 m^3.

The remaining life for the Industrial Landfill using the proposed final contours can be calculated as:

$$\frac{33{,}600\ m^3}{10{,}000\ m^3/year} = 3.36\ years$$

Based on the above estimate, the Industrial Landfill would reach design capacity in May, 1998. Should it appear, subsequent to determining a revised consumption rate, that the proposed final contours will be reached in a period significantly different than the determined remaining life provided herein, a revised Industrial Landfill Site life estimate will be calculated and provided to the MOEE. Site life estimate updates will also be provided annually in the annual progress and monitoring reports prepared for the Mayer Waste Disposal Site.

6.0 CONTAMINANT ATTENUATION ZONE

6.1 ZONE DESCRIPTION

As discussed in the Phase II Environmental Investigation Final Report and the Proposed Remediation Plan, groundwater within the water table aquifer beneath and in the vicinity of the Site ultimately discharges into local watercourses, particularly the on-Site drainage ditch flowing easterly between the Domestic and Industrial Landfills. Although some downward vertical migration of groundwater may occur through the fine grained material to the deeper overburden aquifer, the majority of the flow occurs laterally within the surficial water table aquifer. Thus, it is assumed that horizontal flow occurs within the shallow water table aquifer.

Normally, groundwater impacts are assessed at the property boundary in consideration of the RUC. This guideline addresses the magnitude of the acceptable impact at the property boundary in recognition of the "reasonable use" of groundwater beneath the adjacent property. For the areas situated to the north and east, the most reasonable use of groundwater is drinking water. Thus, the RUC is utilized to assess the acceptability of the existing impact at the downgradient property boundary.

According to the RUC, the maximum allowable level of a particular parameter, such as chloride, in groundwater at the Site boundary can be determined. For chloride, a non-health related parameter, addition of the background level to 50 percent of the difference between the MOEE drinking water objective and background would enable determination of the maximum allowable level. The MOEE drinking water objective for chloride is 250 mg/L. Based on the results of the groundwater sampling programs conducted as part of the Phase II Environmental Investigation (November, 1993, January and April, 1994), the background chloride level for the shallow water table aquifer is about 20 mg/L. The background chloride level of 10 mg/L was established for the lower overburden aquifer. Thus, utilization of the RUC yields a maximum allowable chloride level of about 135 mg/L at

the downgradient Site boundary for the shallow water table aquifer and 130 mg/L for the lower overburden aquifer.[1]

The Phase II environmental investigation identified an impact on the quality of groundwater within the shallow water table aquifer to the north and east of the Domestic Landfill. The study indicated that the maximum allowable chloride level of 135 mg/L would be met at the eastern margin of the adjacent property. Thus, a downgradient contaminant attenuation zone (CAZ) was proposed to be established on property owned by 781998 Ontario Inc. within the boundaries of the Site.

The zone where the attenuation of contaminants occurs will encompass the easterly boundary adjacent to the Hawkesbury Transport and Excavation Inc. property, north to the Site boundary and the Carillon Gardens subdivision and south to the approximate southerly limit of the buffer zone south of the Domestic Landfill. The CAZ would be fully encompassed by the proposed buffer zone for the Mayer Waste Disposal Site. The limits of the proposed CAZ are identified on Plan 2.

It is noted that a legal survey was completed in December, 1994 in order to establish and subsequently register on title the limits of the Waste Disposal Site. 781998 Ontario Inc. is currently in the process of registering the legal survey and corresponding EPA Certificates of Approval on title subject to resolution of land use planning issues with the Township of West Hawkesbury and the Ministry of Natural Resources.

6.2 LAND USE PLANNING CONSIDERATIONS

As discussed with Ms. Daphne Wretham of J.L. Richards and Associates Ltd., the planner of record with the Township of West Hawkesbury, an amendment to the Official Plan of the Township of West Hawkesbury is not required as the intended land use (i.e. CAZ) would be consistent with the broad definitions set out for Special Rural/Mineral

[1] CRA, May 20, 1994

Aggregate Area use policies. Therefore, an Official Plan amendment will not be sought to establish the CAZ.

With respect to the Township of West Hawkesbury Zoning By-law 89-06, however, Ms. Wretham suggested that the CAZ could be established by amending the Mineral Aggregate-Pit zoning designation on the lands to the east of the Mayer Waste Disposal Site owned by 781998 Ontario Inc. to Mineral Aggregate-Pit (Special Exception). The Special Exception designation would include any necessary prohibitions relating to the extraction of aggregate resources from this property such that the integrity of the CAZ would not be compromised by aggregate extraction activities. 781998 Ontario Inc. will therefore prepare and submit an application to the Township of West Hawkesbury to amend the zoning of this property to reflect the above.

On the subject of aggregate extraction, 781998 Ontario Inc. currently possesses a Class A license under the Aggregate Resources Act and Regulations to remove aggregate from the easterly property owned by 781998 Ontario Inc. encompassing the CAZ. Additionally, 781998 Ontario Inc. and Hawkesbury Transport and Excavation Inc. submitted to and received joint-approval from the Ministry of Natural Resource (MNR) Site Plans (approval date April 21, 1994) for the Class A license held by both 781998 Ontario Inc. and Hawkesbury Transport and Excavation Inc. 781998 Ontario Inc. is prepared to surrender its license, if necessary, in order to facilitate the rezoning of the easterly property encompassing the CAZ. Resolution of potential license surrender issues will be completed in conjunction with the MNR. Additionally, issues concerning progressive rehabilitation of the subject lands, as per the approved Site Plans under the Interim Expansion Plan for the Domestic Landfill, will be addressed concurrently with the MNR.

7.0 BUFFER ZONE

7.1 ZONE DESCRIPTION

As discussed in the Proposed Remediation Plan, under Section 11 of Ontario Regulation 347, a buffer area, defined as a neutral zone, is required around the perimeter of the fill area. MOEE Policy 07-07 (Land Use On or Near Landfills and Dumps, November, 1987) requires that the buffer area be a minimum of 30 metres wide. The MOEE does not anticipate revisions to required buffer area minimum widths in the near future. Plan 2 illustrates the proposed buffer zone limits around the Industrial Landfill.

Except for the west side of the Industrial Landfill, there is adequate land owned by 781998 Ontario Inc. around the Industrial Landfill to comply with MOEE Policy 07-07 criteria. The buffer zone limits have been established to encompass the CAZ on the north and east side of the Industrial Landfill.

Presently, the limits of refuse at the west side of the Industrial Landfill exceeds the west property line at the north end of the Site. Due to the space limitation on the west side of the Industrial Landfill, it is proposed to relocate approximately 6,000 m^3 of waste and cover soil to provide sufficient space for a 3.0 metre wide on-Site road, a 1.7 metre perimeter ditch allowance and a 0.5 metre berm allowance as shown on Plan 2. The proposed west side buffer zone for the Industrial Landfill will therefore be 5.2 metres wide.

The buffer zone along the west side of the Industrial Landfill has been established to minimize the volume of historically disposed refuse to be excavated for both environmental and economic reasons and allow for construction of a perimeter site maintenance road and stormwater management ditch. Should mitigative measures be required along the west sides in the future, the perimeter maintenance road will provide a platform suitable for the installation of landfill gas and/or leachate barrier and collection systems.

7.2 LAND USE PLANNING CONSIDERATIONS

As discussed in Section 6.2, an amendment to the Township of West Hawkesbury Zoning By-law will be sought to establish the Mayer Waste Disposal Site. This in turn implies that buffer zones to the north and east of the Industrial Landfill will be subject to a new zoning designation which incorporates both the CAZ and buffer zone lands. Resolution of issues relating to potential surrender of the pit and quarry license held by 781998 Ontario Inc., if necessary, under the Aggregate Resources Act and Regulations on proposed CAZ lands must also be completed in conjunction with the MNR.

8.0 CONCEPTUAL SURFACE WATER MANAGEMENT PLAN

As discussed in the Proposed Remediation Plan, a drainage ditch flows through the Site between the Domestic and Industrial Landfills. The ditch forms a headland tributary to the Bruno Lauzon Municipal Drain. The Phase II Environmental Investigation Final Report concluded that existing landfill operations seem to have marginally impacted the quality of surface water in the ditch. The main impact to the ditch would appear to be related to metals contamination. Minor degradation of the quality of surface water for selected volatile organic compounds (VOCs) appears to be occurring upstream of the Mayer Waste Disposal Site, suggesting an off-Site source located to the west. Additional sampling to confirm the existing impact on surface water quality and to define the extent of this impact was recommended. It was also recommended that a Surface Water Management Plan (SWMP) be developed to control peak flows, control sediment migration and isolate the existing ditch from the Domestic and Industrial Landfills.

The general objective of the SWMP is to minimize the impact of surface water flow (mainly stormwater) from the Domestic and Industrial Landfills. The SWMP must be practical, effective, reliable, economical, safe, and maintainable.

Based on the Phase II environmental investigation, project history, Agency comments and regulatory requirements, the following specific objectives have been formulated:

Flood Risk

- do not create backwater impacts due to grading and general operations which will increase upstream flood risk;
- design on-Site ditching to convey a 100-Year Storm event;
- limit land uses within the floodplain adjacent to the existing ditch;
- quantify downstream flood risk concerns and ensure downstream flood risk is not negatively impacted.

Water Quality

- develop remedial measures for the control of the impact on surface water to ensure that Provincial Water Quality Objectives and Guidelines are met and that no detrimental impact of the off-Site environment occurs;
- implement a monitoring program to further define water quality issues and to evaluate SWMP effectiveness.

Erosion

- implement a Sediment and Erosion Control Plan for interim conditions as part of the overall SWMP;
- provide stormwater runoff volume control to ensure erosion potential is not negatively impacted during frequently occurring storms through an increase in either runoff volumes, peak flows or flow durations.

Groundwater Recharge

- provide infiltration of retained water, where possible, within on-Site ditching to assist in the management of the CAZ.

Ecological Features and Conditions

- define the local ecology and ensure that operation of the Domestic and Industrial Landfills and implementation of the SWMP does not negatively impact the environment.

Operational Features

- implement operational changes to prevent further impacts on water quality;
- relocate the exiting ditch which bisects the Site to provide a buffer between the Domestic Landfill and the ditch.

A complete description of the conceptual SWMP, maintenance procedures, surface water monitoring program and approvals requirements is provided in the Proposed Remediation Plan.

The hydrogeologic modelling and the final ditch and pond designs are provided in the report entitled "Surface Water Management Plan, Mayer Waste Disposal Site" (CRA, March, 1995). The above report along with an application under Section 53 of the Ontario Water Resources Act is presently being finalized for submission to the MOEE.

9.0 LANDFILL GAS MANAGEMENT PLAN

As discussed in the Proposed Remediation Plan, during the Phase II environmental investigation two gas probe nests were installed along the southern boundary of the Mayer Waste Disposal Site to monitor the potential for methane gas migration south from the Domestic Landfill Site. Both gas probe nests have been monitored on four occasions including, April 26 and April 27, 1994, September 26, 1994 and February 7, 1995. Monitoring of landfill gas was accomplished by means of a portable combustible gas metre. No gas was detected in the two gas probe nests during all monitoring events. No other locations on the Mayer Waste Disposal Site were identified as potential landfill gas migration pathways which would cause impacts due to the lack of active land use to the east and west of the Site.

The types of waste disposed in the Industrial Landfill being predominantly glass, nylon, wood and steel are unlikely to produce landfill gas in sufficient quantity to result in horizontal gas migration.

The Proposed Remedial Plan includes a landfill gas management plan as described in the Phase II Environmental Investigation Final Report. To address potential concerns of landfill gas migration north to the Carillon Gardens residential area, two gas probes will be installed along the northern limit of refuse of the Industrial Landfill to monitor for the presence of landfill gas in the subsurface vadose zone.

For the landfill gas monitoring program, a trigger level of two percent total combustible gas will be adopted for zones that are monitored in the vicinity of the on-Site structures or in areas that are developed around the Site in the future.

The recommended trigger levels should reflect an average of several monitoring events. As such, when a methane level exceeds a trigger level, the monitoring frequency should be increased to monthly to confirm the level. Should the gas levels measured continue to increase, the need for an expanded monitoring program and implementation of remedial measures should be evaluated promptly.

The Proposed Remediation Plan provides a detailed description of a contingency plan in the form of a passive gas barrier system for the control of landfill gas should the need for implementation of remedial measures be determined. In addition, installation of passive vents through the final cover soils over the landfill is also proposed as a contingency measure. The provision of passive vents will:

- maintain the integrity of the final cover soils;
- reduce the potential for the development of gas pressure within the landfill;
- reduce the potential for subsurface horizontal gas migration; and
- allow for additional monitoring to evaluate the status of gas generation within the landfill.

The passive gas vents would be installed along the top center of the final contours proposed for the Industrial Landfill once the contours have been reached and final cover soils have been placed.

10.0 FINAL COVER AND MISCELLANEOUS CLOSURE WORKS

10.1 FINAL COVER

The application of final cover at the Industrial Landfill will be carried out in phases. The west side of the Industrial Landfill will be graded to the required slopes while landfilling operations on the east side continue.

Soil for use as final cover material will be obtained from the Lachute Landfill Site in Lachute, Quebec as discussed in Section 4.3.

Industrial waste disposal and daily/interim cover placement operations on the north and sides of the Industrial Landfill will proceed until the final contours, as shown on Plan 2, have been achieved within the landfill area. A final cover will be placed over the entire surface area of the Industrial Landfill, and will consist of a compacted 0.6 m (2 feet) thick low permeable clayey soil and a 0.1 m (4 inch) thick layer of topsoil. Plan 2 provides a typical landfill perimeter cross-section.

The final cover material secured from the Lachute Landfill Site will contain, as a minimum, fifteen percent (15%) clay by dry weight and will be compacted to provide an average hydraulic conductivity of 10^{-7} cm/sec. to minimize surface water infiltration and, consequently, leachate production. Approximately 22,500 m^3 of clayey soil material will be required to cover the area within the limits of refuse of the Industrial Landfill. It is understood that the soil to be obtained from the Lachute Landfill Site has been deemed surplus and is not required as part of its operations. Confirmation letters related to this subject are provided in Appendix C.

It is estimated that approximately 3,200 m^3 of topsoil will be required to complete the final cover area within the limits of refuse of the Industrial Landfill. Topsoil will be required to be imported from off-Site sources.

Vegetation on top of the final cover will be established at the Industrial Landfill to prevent soil erosion, to promote evapotranspiration, and to enhance the appearance of the Industrial Landfill Site.

During the closure period, final cover works will include the placement of final cover on the north and west sides of the Industrial Landfill as presented on Table 10.1. The balance of the final cover for the east and south side works will be carried out on an intermittent basis as the landfill reaches final contours. A typical landfill cross-section illustrating the final cover is provided on Plan 2.

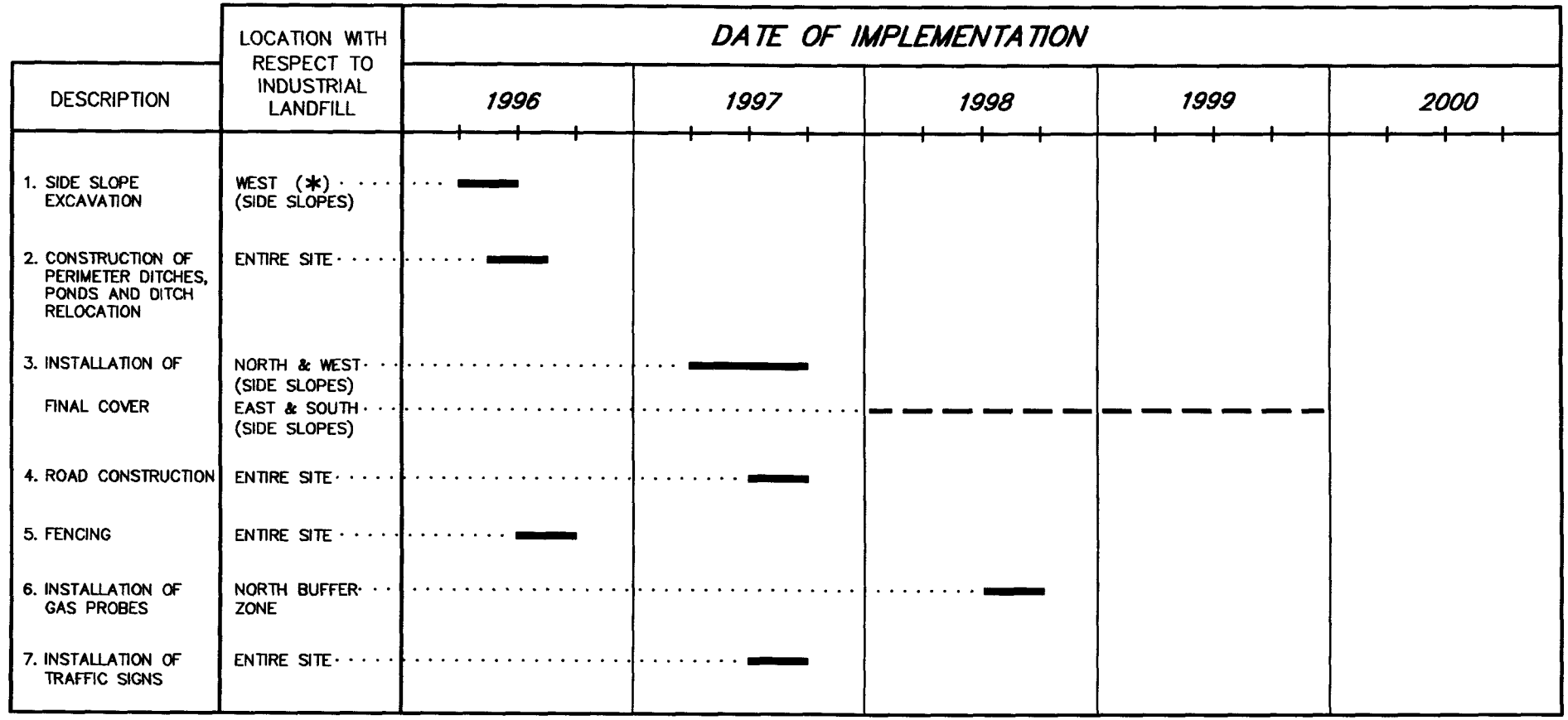
10.2 MISCELLANEOUS CLOSURE WORKS

10.2.1 On-Site Roads

As discussed in the Proposed Remediation Plan, access roads and on-site roads at the Mayer Waste Disposal Site presently consist of cleared surfaces graded with a bulldozer and compacted through heavy truck and waste compactor traffic on-site. In accordance with Section 11 of Ontario Regulation 347, access roads and on-Site roads are required to permit the travel of vehicles hauling waste to and on the landfill site under normal weather conditions.

Perimeter Site maintenance roads and on-Site access roads will be constructed at the Industrial Landfill using suitable granular material and/or crushed concrete rubble. Plan 2 shows the proposed location of the on-Site perimeter maintenance roads for the Industrial Landfill.

On-Site road drainage will be achieved by means of sloped road surfaces and stabilized ditches. The road surface will consist of an approximate 0.5 m thick layer of granular material properly placed and compacted. All on-Site roads will have a minimum 3 percent crossfall and will be a minimum 3 m wide.



LEGEND:

CONTINUOUS ACTIVITY

ACTIVITY TO BE CARRIED OUT BASED ON SCHEDULE OF REACHING FINAL CONTOURS

(*) NO SIDE SLOPE EXCAVATION REQUIRED FOR NORTH, SOUTH, OR EAST SLOPES

CRA

TABLE 10.1
SCHEDULE OF CLOSURE WORKS
INDUSTRIAL LANDFILL CLOSURE PLAN
MAYER WASTE DISPOSAL SITE
Township of West Hawkesbury, Ontario

5345 (9) MAR 16/95(0) REV.0 (S-03)

All perimeter Site maintenance roads will be constructed at the Industrial Landfill during the closure period (approximately Summer, 1997).

Access to the active refuse disposal area will be provided through an on-Site access road leading up to the south side and onto the plateau of the Industrial Landfill. The location of the access road will be revised as required to provide access to the active disposal area of the landfill.

10.2.2 Fencing

The Mayer Waste Disposal Site is presently bounded on all sides with dense low to medium canopy vegetation which acts to reduce trespassing and illegal dumping. A gate also presently exists at the entrance to the south buffer zone of the Waste Disposal Site. Section 11 of Ontario Regulation 347 requires that the waste disposal area be enclosed to prevent unauthorized entry, and that roadway entrances be fitted with lockable gates.

A four foot high post and woven wire fence (Ontario Ministry of Transportation highway fence) will be installed around the limits of the proposed buffer zone, as shown on Plan 2, during the closure period (approximately Summer, 1996).

Trees, shrubs and vegetation will be left in-place as much as possible to provide visual screening and aid in litter control.

10.2.3 Signs

Section 11 of Ontario Regulation 347 requires signs to be posted for the prevention of accidents at the Site.

Signs will be installed at the Mayer Waste Disposal Site during the closure period (approximately Summer, 1997) to provide users of the landfill with information and direction regarding disposal of waste, Site

operation and management and any pertinent information such as disposal fees, exclusions of specific wastes, on-Site operating procedures and on-Site safety procedures.

A large sign will be installed at the Mayer Waste Disposal Site entrance indicating the following:

- Name and address of the Site owner and operator;
- Certificate of Approval numbers for operating a landfill site;
- Hours and days of operation of the landfill site;
- Admission restrictions;
- Any applicable local municipal by-laws;
- Emergency contact and telephone numbers;
- Types of waste accepted; and
- Tipping fee schedule.

In addition, along Site access roads, notices on prominent and clearly labelled sign boards, legible at a distance of about 20 m will be installed to provide the following information:

- Direction to users and waste haulers about permitted routes to various disposal areas;
- Road safety instruction such as speed limits, intersections and warnings of other road hazards; and
- Warnings on illegal dumping by the sides of roads.

Other signs will be installed to display the following information:

- Type of waste accepted at any particular disposal location;
- Instructions on disposing of waste at a specific location;
- Warning of any hazard such as heavy equipment or truck movement; and
- Directions on accident prevention and safety procedures specific to a particular disposal location.

Identification signs will also be posted at all monitoring wells and sampling locations with warnings on restricted areas.

10.3 SCHEDULE OF MISCELLANEOUS CLOSURE WORKS

Miscellaneous closure works including side slope excavation, construction of ditches and ponds, installation of final cover, road construction, fencing, installation of gas probes and traffic signs will be carried out in phases throughout and immediately subsequent to the closure period between April, 1996 to approximately the end of the year 1999, as presented on Table 10.1.

11.0 MONITORING PROGRAM

11.1 INTRODUCTION

As discussed in the Phase II Environmental Investigation Final Report and the Proposed Remediation Plan Report, the purpose of the monitoring program is to evaluate the potential impact of landfilling activities on surface water and groundwater quality, and the potential for migration of landfill gas. It has been designed to provide an early indication of any unacceptable impact which may occur in the future, and thus the need to implement a contingency plan. The results of this program will be evaluated on an annual basis and provided in an Annual Monitoring Report.

11.2 SURFACE WATER

Surface water samples will be collected at six locations on a semi-annual basis during April and September, and will coincide with the groundwater quality sampling events. The proposed sampling locations are provided in Table 11.1 and shown on Figure 11.1.

Surface water levels and flows will be measured at each sampling location. Samples will be collected for analysis of general chemistry, total metals and volatile organic compounds as per Tables 11.2 and 11.3. The analyses to be carried out meet the requirements of the core parameter list of the MOEE's Draft Guidelines - Surface Water Quality Assessment for Existing Waste Disposal Sites.

11.3 LEACHATE AND GROUNDWATER

The proposed leachate and groundwater monitoring program will be conducted at the locations noted on Table 11.1 and shown on Plan 1. As such, this monitoring program will include two leachate wells, six

TABLE 11.1

PROPOSED MONITORING LOCATIONS
MAYER WASTE DISPOSAL SITE

Gas Probes

GP1A/B-94
GP2A/B-94

Leachate Wells

LW1-94
LW2-94

Water Table Aquifer Wells

OW1-93
OW4B-93
OW5B-94
OW6B-94
OW7B-94
OW12-94

Lower Overburden Aquifer Wells

OB-1
OB-3
OB-5
OB-6
OW2-93
OW3A-93
OW3B-93
OW4A-93
OW5A-94
OW6A-94
OW7A-94
OW9-94
OW10-94
OW11B-94
OW11C-94

Bedrock Aquifer

OW11A-94

Private Wells

C, D

Surface Water

SG1-93
SG2-93
SG3-93
SG4-94
SW1-93
SW2-93

water table aquifer wells, fifteen lower overburden aquifer wells, one bedrock aquifer, two gas probe nests and two private wells.

Leachate levels in the leachate wells and groundwater levels will be measured in each monitoring well prior to well development and sampling. Each groundwater monitoring well will be fully developed prior to sampling by purging a minimum of three volumes of standing water in each well. Dedicated Waterra sampling equipment consisting of a foot valve and polyethylene tubing will be utilized for sampling. Standard field protocols will be followed for each sampling event.

All leachate and groundwater monitoring wells will be sampled semi-annually during April and September for analysis of general chemistry parameters outlined in Table 11.2. USEPA 624 volatile organic compounds (plus styrene and xylenes) as per Table 11.3 will be monitored at all surface water locations and all groundwater monitoring locations with the exception of OB-5 and OB-6.

Each sampling event will involve collection of samples for quality assurance/quality control (QA/QC) and will consist of duplicates, field and trip blanks at a frequency of fifteen percent of the total number of samples collected.

11.4 LANDFILL GAS

Monitoring of the presence of landfill gas will be conducted at the two gas probe nests located along the south buffer zone of the Waste Disposal Site as shown on Figure 11.1 and at the two proposed gas probe nests along the north buffer zone of the Waste Disposal Site.

Landfill gas monitoring will be conducted in conjunction with the annual water quality sampling events during April and September. In addition, one round of gas monitoring will be conducted in February to evaluate the potential for gas migration during snow and ice conditions, as previously discussed.

TABLE 11.2

GENERAL CHEMISTRY AND METALS PARAMETER LIST
MAYER WASTE DISPOSAL SITE

General Chemistry

Field pH
Field Conductivity
Hardness
Alkalinity
Chloride
Sulphate
Ammonia
Nitrite
Nitrate
Total Kjeldahl Nitrogen
Dissolved Organic Carbon
Phenols
Calcium
Magnesium
Sodium
Potassium
Turbidity (surface water only)
Colour (surface water only)
Suspended Solids (surface water only)
Field Temperature (surface water only)
Total Phosphorus (surface water only)
Dissolved Oxygen (surface water only)
BOD (surface water and leachate only)
COD (surface water and leachate only)

Total Metals (Surface Water Only)

Aluminum
Cadmium
Chromium
Copper
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Zinc

TABLE 11.3

VOLATILE ORGANIC COMPOUND PARAMETER LIST
MAYER WASTE DISPOSAL SITE

Chloromethane
Vinyl Chloride
Bromomethane
Chloroethane
Trichlorofluoromethane
1,1-Dichloroethylene
Dichloromethane
trans-1,2-Dichloroethylene
cis-1,2-Dichloroethylene
1,1-Dichloroethane
Chloroform
1,1,1-Trichloroethane
1,2-Dichloroethane
Benzene
Carbon Tetrachloride
1,2-Dichloropropane
Trichloroethylene
Bromodichloromethane
trans-1,3-Dichloropropene
cis-1,3-Dichloropropene
Toluene
1,1,2-Trichloroethane
Dibromochloromethane
Tetrachloroethylene
Chlorobenzene
Ethyle Benzene
m+p-Xylene
Bromoform
Styrene
0-Xylene
1,1,2,2-Tetrachloroethane
2-Chloroethylvinyl ether
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene

11.5 PERIMETER SITE INSPECTION

A perimeter Site inspection will be carried out in conjunction with the water quality monitoring events at the Site. The Site inspection will include a walk around the perimeter of the landfill to inspect the integrity and monitor the performance of the final cover. Additionally, drainage ditches, ponds and access road conditions will be inspected to determine the need for any necessary repair and/or maintenance.

Results of the Site inspection will be included the Annual Monitoring Report along with recommendations on necessary repair work, should it be required.

11.6 REPORTING

The data collected will be compiled and thoroughly evaluated. An Annual Monitoring Report will be submitted to the MOEE for review by March 31st following each year of monitoring and will include the following:

1. A Site location map indicating the existing and proposed limit of fill, proposed limit of landfill operation zone, property boundaries, access roads and locations of all monitoring wells.

2. A summary of geologic and hydrogeologic conditions where water level data will be used to construct a groundwater flow map in order to allow determination of the direction of groundwater flow. The rate of flow will be estimated and the extent of migration of the contaminant plume will be delineated.

3. Water quality data and its evaluation to assess the impact of leachate production at the Site. Specifically, data from the current monitoring period will be compared with historical data to illustrate any trends with

time in regard to concentrations of parameters for each monitoring location. A comparison of upgradient (background) and downgradient water quality will also be conducted. Groundwater quality at the downgradient property boundary will be compared to the pre-determined chloride trigger level. Remedial alternatives would be evaluated and a contingency plan would be implemented in the unlikely event of excessive degradation of water quality at the downgradient property boundary.

4. Recommendations examining any changes deemed necessary to improve the monitoring program in order to better assess environmental impacts. As such, any changes in the frequency of sampling, parameters measured, locations monitored and upkeep of the monitoring network will be noted.

5. Site operations and improvements including an annual total station survey which will be undertaken to determine existing conditions and thus, the volume of refuse which has been landfilled since the previous survey.

6. Landfill volumes including, landfill volume remaining and estimated Site life calculations, will be provided during the landfill closure period prior to the landfill reaching design capacity.

12.0 SUMMARY

The purpose of this report is to present a Closure Plan for the Industrial Landfill in support of an application for an amendment of original Provisional Certificate of Approval No. A471507. The application for Provisional Certificate of Approval amendment is to obtain approval for landfilling to proposed final contours designed for the Industrial Landfill which will provide for suitable closure.

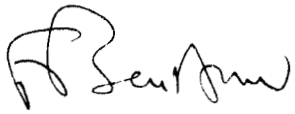
The Closure Plan has been prepared in accordance with the November, 1993 MOEE Landfill Guidance Manual and is based on the following criteria and rationale:

- Remediate the Industrial Landfill by providing adequate buffer zones and landfill side slopes;
- Provide final contours that will minimize leachate production and are suitable for closure of the Industrial Landfill;
- Design and construct final cover which will ensure the long-term post-closure integrity of the Industrial Landfill with respect to any emissions to the environment;
- Design and implement a surface water management plan and drainage control system;
- Implement a leachate management plan by establishing a contaminant attenuation zone; and
- Implement long-term environmental monitoring systems for surface water, groundwater and landfill gases.

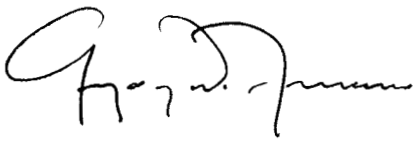
The Proposed Closure Plan is a component of the Proposed Remediation Plan prepared for the Mayer Waste Disposal Site in response to Section 2.4 of the February 19, 1993 Control Order.

All of Which is Respectfully Submitted,

CONESTOGA-ROVERS & ASSOCIATES



for Michael A. Benson, M.A, MCIP



Gregory D. Ferraro, P. Eng.

APPENDIX A

ORIGINAL CERTIFICATES OF APPROVAL

Provisional Certificate No. A 471506

Ministry of the Environment
Ontario

MINISTRY OF THE ENVIRONMENT
SEP 5 1980
KINGSTON ONTARIO

PROVISIONAL CERTIFICATE OF APPROVAL
WASTE DISPOSAL SITE

Under The Environmental Protection Act, 1971 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:

Rene Mayer
132 Richer St.,
Hawkesbury, Ontario

for the use and operation of a 2.4 hectare (6 acre) landfilling site

all in accordance with the following plans and specifications:

1. Application and supporting information
2. Plan entitled "Waste Disposal Site, Town of Hawkesbury File No. 471506, Site Plan."

Located: Pt. E.1/2 Lot 1, Concession 1
Township of West Hawkesbury
County of Prescott and Russell

which includes the use of the site only for the disposal of the following categories of waste (NOTE: Use of the site for additional categories of wastes requires a new application and amendments to the Provisional Certificate of Approval) : Domestic, Commercial, 5% non-hazardous solid industrial (limited to fence posts, wire, etc., from agriculture and metal scraps, broken glass) and 5% "other" (limited to construction debris, rubber tires and white goods).

and subject to the following conditions:

1. Wastes are to be deposited in an orderly manner in the fill area, compacted and adequately covered by cover material daily, or as directed from time to time by the Director of the Southeastern Region of the Ministry of the Environment.

2. A rodent control program is to be initiated at the site.

THIS IS A TRUE COPY OF THE ORIGINAL CERTIFICATE MAILED

ON AUG 22 1980

(Signed)

Dated this 20th day of August, 1980

Director, Section 39,
The Environmental Protection Act, 1971

5345
W100

Ontario

Ministry of Environment and Energy
Ministère de l'Environnement et de l'Énergie

250 Davisville Avenue
Toronto ON M4S 1H2

250, avenue Davisville
Toronto ON M4S 1H2

APPROVALS BRANCH
3rd Floor
Tel. (416) 440-3544
Fax (416) 440-6973

July 19,1994

Mr. Gilles R. Mayer
(781998) Ontario Inc.
132 Richer St.
Hawkesbury, Ontario
K6A 1X8

Dear Mr. Mayer:

RE: Provisional Certificate of Approval No. A 471506
Notice of Amendment - Emergency Approval

Enclosed is a Notice issued under Section 31 of the Environmental Protection Act. This Notice allows the landfill site approved by Provisional Certificate of Approval No. A 471506, dated August 20, 1980 to operate for a period of Ninety (90) days from the date of the Notice, subject to the conditions imposed by the Provisional Certificate of Approval and the Notice.

Should you have any questions or wish clarification on any matter pertinent to the Notice of Amendment you may contact Mr. John McNeely of the Approvals Branch (tel: Toronto (416) 440-3727).

Yours truly,

A. Dominski, P. Eng.
Acting Supervisor
Waste Sites & Systems Approvals Unit
Industrial Approvals Section

Encl.
JM/am

Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

NOTICE
Page 1 of 4

O: Gilles R. Mayer
(781998 Ontario Inc.)
132 Richer St.,
Hawkesbury, Ontario

You are hereby notified that the Provisional Certificate of Approval No. A 471506 dated August 0 1980, has been amended as follows:

1. The name on the face of the certificate has been changed from

Rene Mayer 132 Richer St., Hawkesbury, Ontario	to:	Gilles R. Mayer (781998 Ontario Inc.) 132 Richer St., Hawkesbury, Ontario

2. Approval is granted to allow the site to accept for disposal waste from the Town of Hawkesbury and the Township of West Hawkesbury for a period of ninety days from the date of issuance of this Notice of Amendment.

3. The following conditions have been added to those on the certificate dated August 20, 1980:

Condition 3

No waste shall be deposited at the site after October 17, 1994.

Condition 4

Within 60 days of the date of this amendment, the applicant, Giles R. Mayer, (781998 Ontario Inc.), shall submit to the Regional Director, Eastern Region, a report outlining the alternatives that have been considered for the disposal of waste from the Town of Hawkesbury, together with a recommendation for the preferred alternative for disposal of the waste beyond the ninety (90) day period. The alternatives must consider, as a minimum, sites within Eastern Ontario approved to service the Town of Hawkesbury. The recommendation of the preferred alternative must include a comparison of the alternatives and show that the prefarred alternative will alleviate the emergency situation with respect to waste disposal for the Town of Hawkesbury.

Ontario

Ministry of Environment and Energy | Ministère de l'Environnement et de l'Énergie

Condition 5

Should the selected alternative be the continued use of the site, the applicant shall, within the ninety day period covered by this amendment, submit to the Director, Approvals Branch:

a) an application for an emergency certificate of approval in accordance with the requirements outlined in "Guide for Applying for Certificates of Approval - Waste Disposal Sites, Approvals Branch, September 1992", Appendix VII, Section 12, Emergency Certificate of Approval and

b) an application under Section 27 of the E.P.A. for a maximum five (5) year interim expansion of the site together with a work plan and time table acceptable to the Director, for the submission of:

   (i) a request for an exemption from the "Environmental Assessment Act in accordance with Ministry Policy 03-05, "Environmental Assessment Act, Interim Expansion of Municipal Landfills" and

   (ii) supporting documentation for the application in accordance with the "Guide for Applying for Certificates of Approval - Waste Disposal Sites, Approvals Branch, September 1992", Appendix VII, Section 1, Landfill Sites.

Condition 6

Should the selected alternative not involve the continued use of the site, the applicant shall, within the ninety (90) day period covered by this amendment, submit to the Director, Approvals Branch, for approval a closure plan for the site in accordance with "Guide for Applying for Certificates of Approval - Waste Disposal Sites, Approvals Branch, September 1992" Appendix VII, Section 2, Closure of a Landfill Site.

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

The site has exceeded its approved capacity and is no longer authorized to accept waste for disposal under the Certificate of Approval issued August 20, 1980. At this time there are no practical alternatives for the disposal of wastes from the Town of Hawkesbury and therefore an emergency situation, within the meaning of Section 31, E.P.A. exists with respect to waste disposal for the Town of Hawkesbury. Approval is granted under Section 31 E.P.A. for a period of ninety days to alleviate this emergency situation while alternative solutions are evaluated. During this period those clients within the existing service area of the Township of West Hawkesbury may also continue to use the site.

1) Condition 3 is to clearly indicate to the applicant the date after which no waste may be disposed of at the site under the authority of this amendment.

2) Condition 4 is to ensure that the applicant has considered appropriate alternatives for the disposal of wastes beyond the period covered by this amendment.

3) Condition 5 and 6 are to ensure that the longer term operation of the site will be in accordance with requirements of the Environmental Protection Act, and that the site will not create a nuisance or result in a hazard to the health or safety of any person.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990 c. E-19, 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 142 of the Environmental Protection Act, as amended provides that the Notice requiring a hearing shall state:

The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
The grounds on which you intend to rely at the hearing in relation to <u>each</u> portion appealed.

In addition to these legal requirements, the Notice should also include:

The name of the appellant;
The address of the appellant;
The Certificate of Approval number;
The date of the Certificate of Approval;
The name of the Director;
The municipality within which the waste disposal site is located;

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

This Notice must be served upon:

The Secretary,
Environmental Appeal Board,
2 St. Clair Avenue West,
Suite 502,
Toronto, Ontario,
4V 1N3

AND

The Director,
Section 39, Environmental Protection Act,
Ministry of the Environment and Energy,
250 Davisville Avenue, 3rd Floor,
Toronto, Ontario.
M4S 1H2

DATED AT TORONTO this 19th *day of* July 1994

W. Ng, P. Eng.
Director
Section 39
Environmental Protection Act

/am

5345

Rec'd CRA

NOV 25 1994

Ontario

Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

250 Davisville Avenue
Toronto ON M4S 1H2

250, avenue Davisville
Toronto ON M4S 1H2

APPROVALS BRANCH
3rd Floor
Tel. (416) 440-3544
Fax (416) 440-6973

November 18, 1994

781998 Ontario Inc.
132 Richer St.
Hawkesbury, Ontario
K6A 1X8

ATTENTION: Mr. Gilles R. Mayer

Dear Sir:

Re: Provisional Certificate of Approval No. A 471506
Notice of Amendment - Emergency Approval

Enclosed is a Notice issued under Section 31 of the Environmental Protection Act. This Notice allows the landfill site approved by Provisional Certificate of Approval No. A 471506, dated August 20, 1980 to operate until April 17, 1996 subject to the conditions on the Notice.

This emergency approval should allow sufficient time for you to prepare the documents to support your application for an interim expansion of the site and for the Environmental Assessment Board to hold a hearing and render a decision.

Should you have any questions or wish clarification on any matter pertinent to the Notice of Amendment you may contact me at the above number.

Yours truly,

ORIGINAL SIGNED BY
A. Dominski

A. Dominski, P.Eng., Supervisor
Waste Sites & Systems Approvals Unit
Industrial Approvals Section

Encl.
JM/es
cc: Brian Ward - MOEE, Kingston
R. Robertson - MOEE, Cornwall
Greg Ferraro - CRA Consulting Engineers

TO: Gilles R. Mayer
781998 Ontario Inc.
132 Richer Street
Hawkesbury, Ontario
K6A 1X8

You are hereby notified that Provisional Certificate of Approval No. A 471506 *dated* August 20, 1980 *issued to you is being amended as follows:*

1. Notice dated October 31, 1994 is revoked.

2. Conditions No. 1, 2, 3, of Provisional Certificate of Approval No. A 471506 are revoked.

3. The following conditions have been added to Provisional Certificate of Approval No. A 471506.

CONDITIONS:

7. **Definition of Terms:**

For the purpose of this Notice:

7.1 "The Certificate" means Provisional Certificate of Approval No. A-471506 dated August 20, 1980 as amended by notices bearing identification number A 471506.

7.2 "CRA" means Conestoga-Rovers & Associates Limited.

7.3 "Director" means any one or more of the persons who from time to time are so designated for the purpose of Section 39 of the Environmental Protection Act;

7.4 "District Manager" means the District Manager of the Cornwall District Office of the Ontario Ministry of Environment and Energy or such other official of the Ministry as may be assigned the duties of the District Manager of the Cornwall District;

7.5 "EPA" means The Environmental Protection Act, chapter E.19, R.S.O. 1990;

7.6 "Incident" means an abnormal event or occurrence which may endanger health, cause a nuisance or adversely affect the environment;

7.7 "Ministry" or "MOEE" means the Ontario Ministry of Environment and Energy;

7.8 "This Notice" means the notice dated November 18, 1994 amending Provisional Certificate of Approval No. A 471506.

7.9 "Owner" means 781998 Ontario Inc.

7.10 "Regional Director" means the Regional Director of the Eastern Ontario Region, Ontario Ministry of Environment and Energy or such other official of the Ministry as may be assigned the duties of the Regional Director, Eastern Ontario Region;

7.11 "Remediation Plan" means the Conestoga-Rovers & Associates' report "Proposed Remediation Plan - Mayer Waste Disposal Sites - Township of West Hawkesbury, Ontario - July 1994." (item 6 of Schedule "A").

7.12 "Site" means the domestic landfill site located on the south half of:

Pt. W.1/2 Lot 1, Concession 1
Township of West Hawkesbury
County of Prescott and Russell

7.13 "Supporting Document" means the Conestoga-Rovers & Associates' report titled: "Supporting Documentation For An Emergency Certificate of Approval - Mayer Waste Disposal Sites, Township of West Hawkesbury, October 1994". (item 5 of Schedule "A").

8. This Notice is issued under Section 31 of the E.P.A.
No waste shall be deposited at the landfill site under the authority of this notice after the earlier of:

- April 17, 1996, or

- Once the approved contours indicated on Drawing No. 2 of item 5 of Schedule "A" have been reached.

9. The Owner shall comply with the Conditions and schedules in the Certificate as modified or supplemented by the Director in accordance with the Director's mandate under the EPA. The requirements specified in the Certificate are minimum requirements and do not abrogate the need to take all reasonable steps to avoid violating the provisions of other applicable legislation. The Owner, upon becoming aware of an unacceptable environmental problem associated with the Site, shall

immediately notify the District Manager and take all necessary steps to correct the problem and to mitigate or remedy the resulting impacts on the environment. Nothing in this condition affects any right of appeal the Owner may otherwise have under the EPA.

10. The requirements of the Certificate are severable. If any requirement of the Certificate to any circumstances is held invalid, the application of that requirement to other circumstances and the remainder of the Certificate shall not be affected.

11. Any addition, deletion or other change to the trade, style corporate name or address of the Owner shall be reported in writing to the Director within fourteen (14) calendar days and the report to the Director shall include, as applicable, a copy of the current "Initial Notice or Notice of Change" filed under the Corporations Information Act, R.S.O. 1990, C-39 as amended.

12. The Site shall not be transferred or encumbered without prior written notice to the Director.

13. The Site shall be operated and maintained in accordance with the plans and specifications contained in the documents listed in Schedule "A", subject to any variations authorized in writing by the Director. Should there be any discrepancy between the conditions on the Certificate and the documents in Schedule "A" the conditions shall take precedence. Should there be discrepancies between documents in Schedule "A", the document bearing the most recent date shall prevail.

14. Within 90 days of the issuance of this Notice the Owner shall establish a Contaminant Attenuation Zone (CAZ) east of the property shown on Plan 2 of the Supporting Document. The CAZ shall include the groundwater easement as described in Instrument Number 81284 and 81285 registered under the Lands Title Act at the Prescott Land Registry Office #46 in L'Orignal, Ontario.

15. Within 60 days after the establishment of the CAZ required by condition 14, the Certificate shall be registered on the title to the lands comprising the Site. No operation shall be carried out at the Site after 60 days of this condition becoming enforceable unless the Certificate, including the reasons for this condition, has been registered by the Owner as an instrument in the appropriate Land Registry Office against the title to the Site and unless a duplicate registered copy thereof has been returned by the Owner to the Director.

16. Within three months after the expiry date of this Certificate, as determined by condition 8, the Owner shall submit to the Director and the District Manager a report on the operation of the Site during the emergency period covered by the Certificate. The report shall include, but not be limited to, the following:

    - quantity of waste disposed at the Site;
    - final contours at expiry of the Certificate;
    - operations problems encountered and remedial action taken;
    - monitoring program results, data interpretation and recommendations;
    - the occurrence of any unexpected incidents negatively impacting on the Site, describing the nature of the incident, how it was managed and what action was taken to avoid a recurrence;
    - a summary of complaints received from the public, including the nature of the complaints and the action - taken to address them.

17. The Owner shall record operational problems or incidents which adversely affect the Site, detailing the nature of the problem or incident, how it was managed and the measures taken to avoid its recurrence.

18. The Owner shall provide training to all on-site personnel relating to all legal requirements for the operation of the Site.

19. Only wastes generated within the boundaries of the Town of Hawkesbury and the Township of West Hawkesbury shall be accepted for disposal at the Site.

20. The Owner shall place a sign at the main entrance to the Site on which is displayed in prominent letters the following information:

    - the name of the Site
    - the operating authority
    - the Site's Provisional Certificate of Approval number
    - the approved hours of operation
    - the hours the Site is open to accept waste from the public
    - the telephone number for reporting emergency situations occurring at the Site during non-operating hours

21. The approved hours of operation for the Site are:

    Monday through Friday: 8:00 a.m. to 4:30 p.m.

    Saturday: 8:00 a.m. to 11:30 a.m.

Unless specified to the contrary in any local by-Laws of the Township of West Hawkesbury, maintenance operations at the Site may be carried out between the hours of 7:00 a.m. to 7:00 p.m. Monday to Saturday.

The above hours of operation may be amended with the written approval of the District Manager.

22. During non-operating hours the Site is to be secured against access by unauthorized persons.

23. No waste shall be received from the public for disposal at the Site except during operating hours when the Site is under the supervision of the site attendant or his alternate.

24. Weather permitting, each day's waste shall be covered in a manner acceptable to the District Manager so that no waste is exposed to the atmosphere. If an alternative material to soil is to be used as cover it must qualify as a non-hazardous waste under R.R.O. 1990 Reg. 347. A minimum of 30 cm. of temporary cover shall be applied to areas where no further landfilling will occur for a period of 30 days or more.

25. The burning of wastes at the Site is prohibited.

26. Scavenging is prohibited.

27. The Owner shall mark the corners of the area approved for landfilling with corner posts which shall be maintained so as to be visible throughout the year. No waste accepted for disposal at the Site during the emergency period covered by this Certificate shall be deposited within 30 metres of the west property line.

28. The Owner shall record the following information on waste loads refused access to the Site for disposal purposes:

    The vehicle licence plate number;
    The company name on the vehicle;
    The reason(s) for refusing to accept the waste for disposal.

29. On-site roads shall be routinely inspected to ensure they are maintained in a satisfactory condition. Signs of erosion or surface deterioration shall be promptly repaired. On site roads shall be treated with water or a dust suppressant as required to minimize dust generation.

30. An inspection of the Site's perimeter and access road shall be carried out as required to ensure that litter is being adequately controlled on site. Litter from the Site shall be picked up as needed along the Site's perimeter and access roads.

31. Should an outbreak of vermin or vector occur at the Site, the Owner shall take all steps within the Ministry guidelines to control the outbreak, including the services of a licensed exterminator. Control measures used shall be appropriate for the vermin or vector in question.

32. Within sixty days of the date on this Notice the Owner shall submit to the Director, for approval, a groundwater and a surface water monitoring program as well as a landfill gas monitoring program to be carried out during the emergency period covered by the Certificate. The monitoring programs, upon acceptance by the Director, shall be incorporated into the Certificate as Schedule "B".

SCHEDULE "A"

This Schedule "A" forms part of the Provisional Certificate of Approval No. A 471506.

1. CRA letter of October 14, 1994 to MOEE (Ferraro to Ng): "Supporting Documentation for an Emergency Certificate of Approval".

2. CRA letter of October 21, 1994 to MOEE (Ferraro to Dominski): "Application Fee for 18 Month Emergency C.of A".

3. CRA letter of October 28, 1994 to MOEE (Ferraro to Dominski): "Clarification of Laidlaw Disposal Alternative".

4. CRA letter of October 28, 1994 to MOEE (Ferraro to Dominski): "West Side Buffer Zone".

5. CRA report "Supporting Documentation for an Emergency Certificate of Approval - Mayer Waste Disposal Sites, Township of West Hawkesbury - October 1994".

6. CRA report "Proposed Remediation Plan - Mayer Waste Disposal Sites, Township of West Hawkesbury - July 1994".

7. CRA report "Phase II Environmental Investigation - Mayer Waste Disposal Sites, Township of West Hawkesbury - February 1994".

The reasons for the imposition of the above conditions are as follows:

1. Condition 7 is to clarify the meaning of terms used in the Provisional Certificate of Approval to avoid future misunderstandings.

2. Condition 8 is to clearly indicate to the Owner that approval to operate the Site is of limited duration and states the conditions under which the Certificate expires.

3. Condition 9 is to clearly indicate to the Owner that compliance with the conditions of the Certificate does not relieve it of the obligation to take all reasonable steps to avoid violating the provisions of other applicable legislation relative to the Site.

4. Condition 10 is to make it clear to the Owner that should one of the conditions of the Certificate in any circumstance be found to be invalid it will not invalidate the application of that condition to other circumstances or affect the validity of the other conditions on the Certificate.

5. Conditions 11 and 12 are to ensure that the Ministry is promptly informed of any changes affecting the Owner or the Site that might complicate the Ministry's efforts to protect the natural environment.

6. Condition 13 confirms that the terms and conditions in this Certificate will be used to judge the operation of the Site for EPA compliance and attempts to avoid future misunderstandings by stating the precedence to be given documents should there be discrepancies between them.

7. Condition 14 is to ensure that the Ministry's Reasonable Use Policy Objectives are met at the down gradient attenuation zone boundary.

8. Condition 15 is to ensure that future owners of the Site are made aware of the fact that the land has been used as a landfill and that no use may be made of the land within 25 years from the year in which the land ceased to be so used unless the approval of the Minister for the proposed use has been obtained.

9. Condition 16 is to provide the Ministry with a report on the operation of the Site during the emergency period which would allow the Ministry to determine if the Site was operated and maintained in accordance with the terms and conditions of the Certificate.

10. Condition 17 is to allow the Ministry to review problems which have occurred at the Site that may have adversely affected the natural environment to determine if the action taken was appropriate to correct the problem and prevent its recurrence.

11. Condition 18 is to ensure that personnel involved in the management and operation of the Site are familiar with the conditions on the Certificate and the documents listed in Schedule "A", as well as other pertinent information necessary to operate the Site in a legal and environmentally safe manner.

12. Condition 19 is to clearly define to the Owner the Site's approved service area.

13. Condition 20 provides information about the Site to the public so that they may monitor the Site for compliance and report any violations or unauthorized activities to the Owner or the Ministry.

14. Conditions 21, 22, 23, 24, 25, 26, 29, 30, and 31 are to ensure that the Site is operated in such a manner that public health and the natural environment are protected.

15. Condition 27 is to facilitate the placing of waste within the approved fill area by marking the limits of the area with markers which will be visible to field staff.

16. Condition 28 is to discourage the illegal dumping of loads refused entry to the Site by recording information which could be useful in identifying an offending hauler.

17. Condition 32 is to allow sufficient time for the Owner to prepare a monitoring program for the emergency period which is acceptable to the Director.

REASON FOR THE AMENDMENT

The reason for this amendment is that the landfill has reached its approved capacity and is no longer authorized to accept waste for disposal under the Certificate of Approval issued August 20, 1980. As there are no other approved sites in the area to which wastes can be directed for disposal while a new site is developed and placed in operation through the Hawkesbury and Area Waste Management Master Plan process, an emergency situation, within the meaning of Section 31, EPA exists with respect to waste disposal for the Town of Hawkesbury. This amendment grants approval under Section 31, EPA for the continued use of the Site while the Owner's application for an interim expansion of the site is considered by the Environmental Assessment Board. The period covered by this amendment should be adequate to allow for the Ministry review of the application and the Environmental Assessment Board to hold a hearing and render a decision.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990 c. E-19, 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 142 of the Environmental Protection Act, as amended provides that the Notice requiring a 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 <u>each</u> portion appealed.*

In addition to these legal requirements 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 waste disposal site is 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

<u>AND</u>

The Director,
Section 39, Environmental Protection Act,
Ministry of Environment and Energy,
250 Davisville Avenue, 3rd Floor,
Toronto, Ontario.
M4S 1H2

DATED AT TORONTO this 18th *day of* November, 1994.

THIS IS A TRUE COPY OF
THE ORIGINAL NOTICE
SIGNED BY

A. Dominski, P. ENG.

MAILED ON Nov 22/94

BY _____

Ontario of the Environment

PROVISIONAL CERTIFICATE OF APPROVAL
WASTE DISPOSAL SITE

Under the Environmental Protection Act and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:

Rene Mayer
132 Richer Street
HAWKESBURY, Ontario
K6A 1X8

for the use and operation of a 3.6 hectare landfill site

all in accordance with the following plans and specifications: As listed in Schedule "A"

Located: Part West Half of Lot 1, Conc. B.F.
Township of West Hawkesbury
County of Prescott

which includes the use of the site only for the disposal of the following categories of waste (NOTE: Use of the site for additional categories of wastes requires a new application and amendments to the Provisional Certificate of Approval) 100% non-hazardous solid industrial wastes limited to glass, nylon, wood and steel.

and subject to the following conditions:

1. No operation shall be carried out at the site after sixty days from this condition becoming enforceable unless this Certificate including the reasons for this condition has been registered by the applicant as an instrument in the appropriate Land Registry Office against title to the site and a duplicate registered copy thereof has been returned by the applicant to the Director.

This Provisional Certificate expires on the 1st day of April, 1988.

Dated this 7th day of November, 1985

Director, Section 39
Environmental Protection Act

APPENDIX B

LEGAL SURVEY PLAN

APPENDIX C

CONFIRMATION LETTERS

Consulting Engineers

CONESTOGA-ROVERS & ASSOCIATES LIMITED
179 Colonnade Road, Suite 400
Nepean, Ontario, Canada K2E 7J4
(613) 727-0510 Fax: (613) 727-0704

June 23, 1994

Reference No. 5345

M. Pierre Gionet
Directeur
Lachute Landfill Site
380 rue Principal
Lachute, Quebec
J8H 1Y2

Dear M. Gionet:

Re: Availability of Clay Cover Material
Mayer Landfill Sites, Township of West Hawkesbury, Ontario

Further to our telephone conversation of June 22, 1994, we wish to confirm on behalf of our client, Mr. Gilles Mayer, President, 781998 Ontario Limited, your ability to provide clay for use as landfill cover material from the Town of Lachute Landfill. At this time, we anticipate requiring approximately 55,000 m^3 of clay for use at our client's landfill site located near Hawkesbury, Ontario. Our schedule for this project suggests transporting the clay from your site commencing in late 1994 throughout 1995 and potentially into 1996. Details concerning this transaction may be finalized as the actual date for commencing the transportation of the clay is established.

In the near future, we would like to visit your site to review the Lachute Landfill soils report and to evaluate the clay material. We will contact you to arrange a time and date that meets your schedule. In the meantime, it would assist our client if you could confirm the availability of clay from the Lachute Landfill Site in writing.

Once again, thank you for your assistance regarding this matter. Please direct all correspondence to the undersigned.

Yours very truly,

CONESTOGA-ROVERS & ASSOCIATES

Michael A. Benson, M.A., MCIP
MB/cf/1

RÉGIE INTERMUNICIPALE
Argenteuil Deux-Montagnes

380, RUE PRINCIPALE
LACHUTE (QUÉBEC)
J8H 1Y2
TÉL:.: (514) 562-0778
FAX: (514) 562-8482

Conestoga-Rovers & Associates LTD.
a/s M. Michael A. Benson
179, Colonnade Road, Suite 400
Nepean, (Ontario)
K2E 7J4

Lachute, le 4 juillet 1994.

Objet: Argile du site d'enfouissement (votre référence # 5345)

Monsieur Benson,

Suite à votre lettre datée du 23 juin dernier, il me fait plaisir de vous confirmer que la Régie Intermunicipale Argenteuil Deux-Montagnes procède présentement à l'excavation de quelques 2 millions de mètres cubes d'argile d'une perméabilité moyenne de $3,0 \times 10^{-8}$. Vous trouverez d'ailleurs ci-joint une description sommaire de la caractéristique des argiles.

Nous vous confirmons également que nous sommes disposés à fournir de l'argile pour le site de Hawkesbury. Les détails pourront être discutés lors de rencontres ultérieurs.

Espérant le tout à votre satisfaction, veuillez accepter, monsieur Benson, mes cordiales salutations.

Pierre Gionet,
Directeur

P.J.

Ministry of the Environment
Ontario

Ministère de l'Environnement

Application for a Certificate of Approval for a Waste Disposal Site (Landfill)

Demande de certificat d'autorisation d'un lieu d'élimination des déchets (enfouissement)

Application/Certificate No.
Numéro de demande

Important Note: If this application is for notification of changes in **use**, operations, or **ownership**, specify the MOE number on your certificate and fill in only the data which are being revised.

Remarque importante: *Si cette demande n'est utilisée que pour signifier des changements **d'utilisation**, d'exploitation ou de **propriétaire**, spécifier le numéro m. de l'E. de votre certificat et n'inscrire sur cette formule que les renseignements modifiés.*

1. Applicant ***Demandeur***

☐ Municipal *Municipal* ☐ Provincial *Provincial* ☒ Other *Autre*

Name / *Nom*: 781998 Ontario Inc.

Address / *Adresse*: 486 Lafleche Street — Tel. / *Tél.*: 613-632-2581

City/Prov. / *Ville/prov.*: Hawkesbury, Ontario — Postal Code / *Code postal*: K6A 1M9

If applicant not Municipal or Provincial:
Si le demandeur ne fait pas partie des catégories "municipal" ou "provincial":

☐ Proprietorship *Entreprise à propriétaire unique*

☒ Corporation *Compagnie*

☐ Partnership *Société en nom collectif*

Proprietor's Name if Different from Applicant's / *Nom, si différent de celui du demandeur*:

President's Name / *Nom du président*: Gilles R. Mayer

Name All Partners / *Citer tous les associés*:

2. Land Owner ***Propriétaire du terrain***

Name / *Nom*: 781998 Ontario Inc.

Address / *Adresse*: 486 Lafleche Street, Hawkesbury, Ontario K6A 1M9

3. Lessee ***Locataire***

Name / *Nom*: Not applicable

Address / *Adresse*:

4. Site Operator ***Exploitant du lieu***

Name / *Nom*: Gilles R. Mayer Sanitation Limited — Title / *Titre*:

Address / *Adresse*: 486 Lafleche Street, Hawkesbury, Ontario K6A 1M9

5. Site Location ***Emplacement du lieu***

☐ City *Cité* ☐ Town *Ville* ☐ Other (specify) *Autre (préciser)*

☐ Village *Village* ☒ Township *Canton*

Name (City, Town, etc.) / *Nom (cité, ville, etc.)*: Township of West Hawkesbury

Concession / *Concession*: Broken Front Conc. & Conc. 1 — Lot / *Lot n°*: West Half Lot 1 — Part of Lot / *Partie de lot*: Part 2 (instrument # 69186)

Street Address / *Adresse*:

Include a copy of the plan of survey of any lands on which the site is to be located.
Joindre une copie du levé de tous les terrains sur lesquels le lieu sera situé. (Included)

DRAFT

6. Site Characteristics and Waste Categories

Caractéristiques du lieu et catégorie de déchets

A. Present Land Use
Utilisation actuelle du terrain
Industrial Landfill

B. Present Official Plan Designation of Site
Désignation actuelle du lieu sur le plan officiel
Mineral Aggregate Area

C. Present Zoning Category
Catégorie de zonage actuelle
Mineral Aggregate-Pit

D. Provide details of present land use of all adjoining properties on the location map.
Indiquer sur la carte l'utilisation actuelle des terres de toutes les propriétés adjacentes.

(See note below)
(Voir remarque ci-dessous)

E. Rate at Which Site Can Receive Wastes Per Day
Rythme de déversement possible des déchets quotidiennement

Waste Category / *Ord. ménagères*	Quantity (Tonnes, Cubic Metres, Litres) / *Quantité (tonnes, mètres cubes, litres)*
☐ Domestic / *Domestiques*	
☒ Commercial / *Commerciales*	Non-putrescible construction/demolition waste 150 ~~100~~m3/day*

If any of the following are to be received at the site, attach a description of each including source.
Si des déchets des catégories suivantes doivent normalement être déversés dans le lieu d'élimination des déchets, joindre une description de chacune des catégories, y compris la provenance.

	Quantity / *Quantité*
☐ Liquid Industrial / *Industriels liquides*	
☐ Solid Hazardous / *Déchets solides dangereux*	
☒ Non-Hazardous Solid Industrial / *Industriels solides non dangereux*	Glass, nylon, wood, steel & polyethylene 150 ~~100~~m3/day*
☒ Other / *Autres*	Land clearing debris 100m3/day*

* Site can receive wastes at total of ~~300~~m3/day. 400 + pour - Dufferin expansion

F. No. of Days/Yr. Site Open
Nombre de jours/année d'ouverture du lieu
312 days/year

G. Population Served
Population desservie
unknown

H. Municipalities/Major Industries Served
Noms de toutes les municipalités/grandes entreprises devant être desservies par le lieu
Town of Hawkesbury industry consisting of Amoco Fabrics, Fibreworld, PPG

I. Total Area of Site
Superficie totale du lieu
approximately 24.41 ☒ Hectares / *Hectares* ☐ Acres / *Acres*

J. Total Area to be Filled
Superficie totale à combler
approximately 3.6 ☒ Hectares / *Hectares* ☐ Acres / *Acres*

K. Estimated Site Capacity
Capacité estimative du lieu
33,600 ☐ Tonnes / *Tonnes* ☒ Cubic Metres / *Mètres cubes*

Express rate per day and capacity in same measurement.
Utiliser les mêmes unités pour indiquer le taux par jour et la capacité estimative.

7. Site Enlargement Changes Only

En cas d'agrandissement de lieu seulement

A. Additional Life Expectancy
Durée d'utilisation supplémentaire
3.36 Years / *années*

B. Additional Area Applied for
Superficie supplémentaire demandée
Hectares / *hectares*

C. New Total Area of Site
Nouvelle superficie totale du lieu
Hectares / *hectares*

D. New Potential Municipalities Served
Noms des nouvelles municipalités pouvant être desservies
Counties of Prescott & Russell, Stormont, Dundas & Glengarry; Leeds & Grenville; Lanark; Frontenac; Lennox & Addington; Hastings; Regional Municipality of Ottawa-Carleton

DRAFT

Pour / Dufferin

8. Control System
Système de contrôle

A. Monitoring for
Contrôle des

Gas / *Gaz*	[X] Yes / *Oui*	[ ] No / *Non*
Ground Water / *Eaux souterraines*	[X] Yes / *Oui*	[ ] No / *Non*
Surface Water / *Eaux de surface*	[X] Yes / *Oui*	[ ] No / *Non*

B. Control System for
Système de contrôle

Gas / *Gaz*	[ ] Yes / *Oui*	[X] No / *Non*
Gas Utilization / *Utilisation des gaz*	[ ] Yes / *Oui*	[X] No / *Non*
Leachate / *Lixiviation*	[X] Yes / *Oui*	[ ] No / *Non*

9. Documentation
Documents

List all supporting documents submitted with this Application.
Indiquer tous les documents d'appui accompagnant la présente demande.

Closure Plan, Industrial Landfill, Mayer Waste Disposal Site, CRA, March 1995

Public Consultation Summary, Closure Plan, Industrial Landfill, Mayer Waste Disposal Site, CRA, March 1995

Proposed Remediation Plan, Mayer Waste Disposal Sites, CRA, July 1994 (submitted July 1994 to MOEE Legal Services, Region & District offices)

Phase II Environmental Investigation Final Report, Mayer Waste Disposal Sites, CRA, May 1994 (submitted May 1994 to MOEE Legal Services, Region & District offices)

10. Signature
Signature

Applicant's Name - Printed
Nom du demandeur (lettres moulées)
Gilles R. Mayer

Title
Titre
President

Signature
Signature

Date
Date

Company Seal
(if applicable)

Sceau de la compagnie
(s'il y a lieu)

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