COMPLIANCE INSPECTION REPORT

SOUTH PLANTAGENET (FOURNIER)

WASTE DISPOSAL SITE

REPORT PREPARED BY

INSPECTIONS UNIT

CORNWALL DISTRICT ABATEMENT SECTION

MINISTRY OF ENVIRONMENT AND ENERGY, EASTERN REGION

Inspected By: Larry Benoit
Date Of Inspection: September 2, 1994 & January 27, 1995
Date Of Report: March 28, 1995

met : Rhiat Dilaquia

afternoon

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COMPLIANCE INSPECTION REPORT
SOUTH PLANTAGENET (FOURNIER) WASTE DISPOSAL SITE

1 GENERAL

Purpose

The purpose of this report is to assess the Township of South Plantagenet's compliance with applicable Ontario Ministry of Environment and Energy (MOEE) policies, guidelines, regulations and control documents with respect to the development, operation and closure of its landfill site.

1.1 Site Inspected: **Township of South Plantagenet**
Lot 3, Concession 14
United Counties of Prescott & Russell

1.2 Certificate of Approval Number: **A471801 Last issued April 25, 1980**

1.3 Operating Authority: **Corporation of the Township of South Plantagenet**

1.4 Person Contacted:

Mrs. C. Nicholas, Clerk-Treasurer
Mr. Simon Poirier, Councillor
Mr. Michel Delorme, Operator
Mr. Larry Quesnel, Collection Contractor

1.5 Date of Inspections:

September 2, 1994 and January 27, 1995

1.6 Site Operators: **Mr. Michel Delorme, Attendant**
Mr. Gerald Saureau, Machine Operator
Saurault

2 LOCATION AND BACKGROUND INFORMATION

2.1 Directions to site and general description:

The landfill waste disposal site is located approximately 1 kilometre east of County Road 9 in Concession 14, Township of South Plantagenet, Prescott County. There are two separate landfill areas located on the 30.4 hectare property. The closed portion is located in the northeast part of the property and the active area is located in the southern portion.

The landfill is located in a rural setting serving a population of approximately 1650. The site is open for public use only on Saturdays from 9:00 am to 6:00 pm.

A hydrogeological investigation of the site was done in 1990 by the consulting firm of StanCon Groundwater Engineering Limited. The report describes the hydrogeological environment as relatively simple. An unconfined sand aquifer 4 to 9 meters thick overlies a thick silty clay unit (excerpts appear in Appendix "C")

A Site Development and Operations Plan was prepared in 1991 by McNeely Engineering. Excerpts of the document can be found in Appendix "D".

A location map and site plan are provided in Appendix B.

2.2 Is there a FAP or WMIP in effect?

The Municipality received funding under the Waste Management Improvement Program in the 1990/91 fiscal year to prepare an Operations and Development Plan.

Requests for funds to update ground and surface water monitoring systems did not qualify for WMIP funding for the 1993/94 or the 1994/95 fiscal years.

2.3 Is there a Municipal Recycling Program in effect?

A Municipal Recycling Program is in effect in the Township of South Plantagenet. A private contractor, Ontario Disposal, is providing curb-side collection in the Township.

2.4 Is there a Household Hazardous Waste Collection Program in effect?

Abatement provided an information package to the municipality in April, 1994 and consideration is being given to establish a Household Hazardous waste collection program. Non has been held to date.

2.5 Is the Municipality a member of an area Waste Systems Management Plan?

The Township is not a current member of a Waste Management Systems Plan. It may wish to explore a joint scheme with adjacent municipalities in the interest of dealing with future of waste management needs in terms of minimizing/reducing per capita costs of site operation, monitoring systems,

2 DESCRIPTION DU LIEU D'ENFOUISSEMENT

2.1 Emplacement du lieu d'enfouissement :

Le lieu d'enfouissement se trouve à environ 1 km à l'est du chemin de comté n° 9, dans la concession n° 14, canton de Plantagenet-Sud, comté de Prescott. La propriété de 30,4 hectares comprend deux décharges. La décharge qui se situe dans la partie nord-est de la propriété n'est plus utilisée. L'autre se trouve dans la partie sud.

Le lieu d'enfouissement est établi en milieu rural et répond aux besoins d'environ 1 650 personnes. Il est ouvert au public uniquement les samedis, de 9 h à 18 h.

Une étude hydrogéologique a été effectuée en 1990 par le cabinet d'ingénieurs-conseils *StanCon Groundwater Engineering Limited* (voir l'annexe C). L'hydrogéologie du secteur est relativement simple : un aquifère sableux libre d'une épaisseur de 4 à 9 mètres repose sur une épaisse couche d'argile silteuse.

Un plan d'exploitation a été préparé en 1991 par le cabinet d'ingénieurs-conseils *McNeely Engineering Consultants Ltd* (des extraits figurent à l'annexe D).

(Voir l'annexe B pour le schéma du lieu d'enfouissement.)

2.2 Subventions obtenues dans le cadre du Programme d'aide financière et du Programme d'amélioration de la gestion des déchets

Durant l'année budgétaire 1990-1991, le canton a obtenu une subvention (Programme d'amélioration de la gestion des déchets) pour préparer un plan d'exploitation.

Le canton a demandé des fonds (Programme d'amélioration de la gestion des déchets) pour moderniser ses dispositifs de surveillance des eaux souterraines et des eaux de surface, mais n'a pas été admissible à une subvention pour les années budgétaires 1993-1994 et 1994-1995.

2.3 Existe-t-il un programme de recyclage ?

Un tel programme est en vigueur dans le canton de Plantagenet-Sud. Une entreprise privée (*Ontario Disposal Service*) ramasse les matières recyclables en bordure des rues.

2.4 Existe-t-il un programme de ramassage de déchets domestiques dangereux ?

Le canton a reçu de l'information à cet égard en avril 1994 et songe à mettre sur pied un programme de ramassage. Aucune journée de ramassage n'a encore eu lieu.

2.5 Le canton participe-t-il à un Plan de gestion des déchets ?

Le canton ne participe pas pour l'instant à un Plan de gestion des déchets, mais devrait songer à en établir un avec des municipalités voisines de manière à réduire le coût par habitant de la gestion des déchets (exploitation des lieux d'enfouissement, surveillance, interventions d'urgence, désaffectation, recyclage, ramassage, etc.).

2.6 Le lieu d'enfouissement a-t-il d'autres vocations (compostage de feuilles et de déchets de jardin, recyclage, etc.) ?

Ferraille, appareils électroménagers et câbles sont triés et entreposés dans la partie sud du lieu d'enfouissement (voir l'annexe C).

2.7 Le canton a-t-il mis sur pied un comité de gestion des déchets ?

Le gardien rend des comptes au conseiller municipal, M. Poirier. Celui-ci et la commis-trésorière rendent des comptes au conseil municipal.

Le canton devrait songer à mettre sur pied un comité de gestion des déchets. Un tel comité aurait pour tâche de démystifier la gestion des déchets, d'expliquer le rôle et l'utilité des lieux d'enfouissement, d'écouter les citoyens et de discuter des questions qui les préoccupent.

2.8 Transporteurs de déchets

L'entreprise *Ontario Disposal Service* (Larry Quesnel, Limoges) ramasse les déchets domestiques et commerciaux du canton. Le contrat sera renouvelé sous peu. (Voir le certificat d'autorisation à l'annexe A).

3 CAPACITÉ DU LIEU D'ENFOUISSEMENT

3.1 Population : 1 650

Source des données démographiques : Demande de subvention (Programme d'amélioration de la gestion des déchets) présentée par le canton en 1993.

contingency plans, site closure plans, recycling facilities, collection systems, etcetera.

2.6 Other facilities at the site:
(leaf/yard waste composting or recycling site)

Scrap metals, white goods and wire are segregated and stored in the southern portion of the site. See the Appendix "C" picture file.

2.7 Is there a municipal waste management committee (or PLC)?

The Operator reports to Councillor Poirier who, along with the Clerk/Administrator, reports to the Township Council.

The Municipality should consider the establishment of a Municipal Waste Management Committee. Establishment of such a group ensures:

- **good community relations and a better understanding of the role of landfilling in waste management, and**

- **the availability of a mechanism for identification and resolution of issues and concerns of the public.**

2.8 Waste management haulers utilizing the site:

Ontario Disposal Service (Larry Quesnel, Limoges, Ontario) is contracted to provide municipal and commercial garbage collection throughout the Township. The contract is due for renewal shortly. The Certificate of Approval for the system is included in Appendix "A".

3 SITE CAPACITY

3.1 Population Served: **1650**

Source of data pertaining to population: 1993 Waste Management Improvement Program application submitted by the municipality.

3.2 Area of the Site including buffer:

Certificate of Approval No. A471801 specifies a 24 Ha landfilling site. The landfilling site is located within a 30.4 Ha parcel of land owned by the Township.

The landfill has been surveyed but does not have visible markers to identify disposal area and buffer zone line boundaries.

3.3 Capacity:

Total Capacity: **Greater than 20 years**

Currently Used: **2 to 3 hectares (estimated from apparent foot prints)**

Reserve:

In excess of 20 hectares is available for future landfilling, according to the Site Development and Operations Plan dated February 1991. The current Provisional Certificate of Approval, issued April, 1980, identifies the total site area (including buffers) to be 30.4 hectares.

a) Volume of waste deposited (1993-94):

I,C & I: 20% x 610 = 120 m^3/year

Domestic: Total waste estimated at 490 m^3/year

Other: wood waste is segregated and burned 10 to 20 times per year; estimated volume is 100 m3/year.

Source of data (ie. scales, haulers invoice, surveys):

There is no scale house or records kept of individual loads coming into the site. Volumes are estimated from the haulage routine of two packer trucks per week; 7 tons per week.

4 OBSERVATIONS BY MOEE INSPECTION STAFF

4.1 OPERATING PLAN

Does the operating Authority have a suitable site operation, development and closure plan?

A Site Development and Operations Plan (D&O plan) was prepared in 1991; however, the Township of South Plantagenet has not fully implemented a comprehensive operation, development, and closure plan.

4.2 MONITORING PROGRAM

Does the operating Authority have suitable monitoring programs for groundwater, surfacewater and a landfill gas?

The Township does not have a formal monitoring program.

4.3 SITE SECURITY/SUPERVISION:

Does the operating Authority provide suitable security and supervision for the site?

The site has a lockable gate and is not open to the public unless a supervisor is on duty.

4.4 METHOD OF OPERATION (INCLUDING COMPACTION AND COVERAGE)

An area fill method of operation (recommended in the D&O plan) is appearing to be utilized at the site.

The site operation should be modified such that the working trench should be covered after the 50 meter wide fill area advances 6 to 8 meters north or at least once per month during the summer. Winter coverage should also be done on a monthly basis unless extreme weather conditions prevail. All other areas should be covered with a low impermeability soil to reduce infiltration, prevent blowing litter and to prevent access into the waste by rats, birds, insects and other animals.

4.5 SIGNS

Does the operating Authority provide suitable signs for the site?

a) Entrance signs:

The entrance sign states the site is open on Saturday, but does not state the name and telephone number of the operator of the landfill, types of waste allowed, persons allowed to use the site, and emergency telephone number.

b) Site signs:

The site signs are very good and provide direction to the domestic disposal area of the site; but the sign near the area for segregated wood, wire, metal and appliances was obscured from vision by bushes and shrubs.

4.6 ROADS

a) Local travel routes:

The Concession Road allows two way traffic and has a paved surface. The road is in good condition and is suitable for year-round use.

b) On site:

The on-site roads are sand/gravel based and are in good condition.

4.7 SPECIAL CONDITIONS (OPEN BURNING ETC)

Are there any special conditions of operation at the site?

There are no special conditions at this site. The D&O Plan mentions burning of wood waste as an option. No burning of any material other than clean wood and brush should occur at the site. The operating plan should provide detailed conditions and instructions for burning of wood waste. MOEE Policy 14-08-01 "BURNING AT LANDFILLING SITES" is included for reference as Appendix "G" in this report .

4.8 TIPPING FEES

Does the operating Authority have a system of tipping fees?

a) Method: **Site tipping fees are not employed ate the site.**

b) Comments: **Operating costs of the waste disposal site and the collection system contract are recovered through annual municipal tax assessments.**

4.9 SEGREGATION OF MATERIALS

Does the operating Authority have suitable materials segregation/recycling facilities?

a) Material: **White goods and metals**

Volume: **Scrap metals 10 to 20 tons removed five or six times over the course of the year by Charlebois Scrap, Grenville, Quebec.**

Disposal/Destination: **Grenville/Lachute, Quebec.**

Material: **Brush**

Volume: **Variable from year to year.**

Disposal/Destination: **Brush and wood waste is burned on site.**

4.10 LITTER CONTROL

Does the operating Authority have suitable litter control programs?

a) On site:

During the inspection litter was not seen off property.

b) Adjacent lands:

Litter was not observed on the adjacent lands.

c) Transportation routes:

Litter was not observed along the transportation routes.

5 CONTINGENCY PLANS

Have contingency plans been formulated for this facility?

The Site Development and Operations Plan contains provisions for an emergency

dumping area and for fire control; however, the municipality does not have a comprehensive contingency plan for the landfill site.

Comments:

A contingency plan should be prepared to document reporting procedures and actions to be taken in the event of such occurrences as a fire, equipment failure, odour complaints, rodent infestation, leachate migration, methane gas, disposal of non-hazardous spill cleanup material, etcetera, and failure of the site to operate in compliance with the requirements of the operation/development/closure plan(s) and the requirements of the Ministry of Environment and Energy and other regulatory agencies. This contingency plan should also stipulate actions to be taken to comply with Terms and Conditions of the Certificate of Approval.

Contingency plans should be maintained and up-dated on a regular basis and should be available to the site operator and posted at site attendant's building.

6 ATTENDANT TRAINING/INSTRUCTION/DUTIES?

6.1 Has the attendant been instructed regarding the following issues:

a) Operating/development plan: **No**

b) Ont. Reg. 347: **No**

c) MOEE policies and guidelines: **No**

d) Training courses: **No**

e) Certificate of Approval requirements:

No formal training or instruction has been provided to employee's of the Township regarding operation of the landfill site.

7 RECORD KEEPING AND DATA SUBMISSION

7.1 Does the Operating Authority have a Self Assessment Reporting Strategy in place?

The D&O plan contains an annual report form; however, no submissions

were located in Abatement files.

7.2 Is there a documented method providing status reports to the Ministry of Environment and Energy?

Status reports regarding annual operations and monitoring of the site are not prepared. An annual summary should be prepared and submitted to the Cornwall District Office of the M.O.E.E.

8 COMPLIANCE WITH MOEE LEGISLATION AND CONTROL DOCUMENTS

8.1 *PROVISIONAL CERTIFICATE OF APPROVAL*

Expiry Date: None

Does the Operating Authority comply with the terms and conditions specified in the Certificates of Approval?

Certificate of Approval No. 471801 lists only one condition, namely that "no use of the site be made unless the Certificate has been registered by the Township as an instrument in the appropriate Land Registry Office against title to the site".

The Certificate was registered on title as Instrument No. 44631.

The South Plantagenet Township Waste Disposal Site Certificate of Approval is outdated and does not reflect the current conditions at the site. Although the site is fairly well maintained in terms of general housekeeping the site appears to be operated on a day-to-day basis.

There is no planning for the site in terms of a operations/development/closure plan and no monitoring program in place for groundwater or surfacewater. The waste footprint may have encroached into the buffer area on the east side and there is an expressed need for a monitoring program to better define groundwater and surface water characteristics.

For these reasons the existing Certificate of Approval should be amended to reflect the current conditions at the site and bring the site into compliance with Ont.Reg. 347. Conditions to be included in an amended Certificate should include but should not be limited to the following:

- **The Township should implement a Site Development and Operations Plan (D&O plan) for the site.**

- **A consultant should be retained to prepare a report updating existing conditions at the site including surfacewater, groundwater and landfill gas contamination (if applicable). The report should include a proposal for an appropriate monitoring program. A "Reasonable Use" for ground water assessment should be conducted at the site.**

- **The Township should be required to submit to the M.O.E.E. an annual or bi-annual report detailing the operations during the reporting period, any deviations from the operations/development/closure plan and any proposed changes for the site.**

- **The Township should develop formal contingency plans for the site and the plans should be made available to all municipal employees associated with the site.**

- **The landfill boundaries and maximum waste volumes to be deposited at the site should be clearly indicated in the Certificate of Approval documents.**

8.2 *ONTARIO REGULATION 347, ENVIRONMENTAL PROTECTION ACT*

Does the operating Authority comply with the requirements of Ont. Reg. 347, EPA?

Part 7 of Section 11 of Ont. Reg. 347 states the following:

"Where there is a possibility of water pollution resulting from the operation of a landfilling site, samples shall be taken and tests made by the owner of the site to measure the extent of egress of contaminants and, if necessary, measures shall be taken for the collection and treatment of contaminants and for the prevention of water pollution."

The Township's 1991 Site Development and Operations Plan identifies the need for annual monitoring; however, groundwater or surfacewater monitoring programs for the landfill site have not been established.

9 CONFORMANCE WITH MOEE POLICIES AND GUIDELINES

Does the operating Authority conform with the following applicable MOEE POLICY(S) and the "GUIDANCE MANUAL FOR LANDFILL SITES RECEIVING MUNICIPAL WASTE" dated November 1993?

9.1 *Policy 14-06 Registration on Title of Certificates of Approval For Waste Disposal Sites.*

The Township has conformed to the requirements of this Policy. The Certificate has been registered as instrument 44631.

9.2 *Policy 15-08* *Incorporation of the Reasonable Use Concept Into M.O.E.E. Groundwater Management Activities*

The Township has not conducted a Reasonable Use Assessment of the groundwater adjacent to the landfill site.

9.3 *Guidance Manual For Landfill Sites Receiving Municipal Waste November 1993*

The above-noted manual is a comprehensive document which covers most topics associated with municipal landfills. In summary, the South Plantagenet Township landfill site is not in conformance with the following sections of the manual.

a) Site Operations Plan:

The operations and development plan for this site was prepared in 1991, but is not being adhered to by the operator.

b) Buffer:

Adequate buffer has not been provided on the north and east site boundaries.

c) Contingency Plans:

There is no formal comprehensive contingency plans for this site.

d) Monitoring Program:

There is no monitoring program for this site. A thorough evaluation should be undertaken to determine what impact the landfill site is having on the on-site and off-site groundwater and surfacewater regimes.

e) Status Reports:

An annual or bi-annual status report is not prepared for this site.

f) Signs:

The entrance sign does not provide information on the site owner/operator, who is eligible to use the site, a short list of wastes accepted at the site, and an emergency telephone number.

For more specific information on these and other standards of operation, please refer to the "SUMMARY OF OPERATIONAL PRACTICES AT LANDFILL SITES" in Appendix "D" of this report.

10 DEFICIENCIES

NON-COMPLIANCE WITH CONTROL DOCUMENTS

1. *Provisional Certificate of Approval:*

The municipality is operating in compliance with the current Provisional Certificate of Approval, however, the approval should be re-issued to include implementation of a Development, Operation, and Closure Plan which includes a Contingency Plan and Monitoring Program.

2. ***Ont.Reg. 347 - Part 7 of Section 11:***

There is no evidence of non-compliance with requirements of Part 7 of Section 11 of Ont.Reg. 347; however, the monitoring program identified in the 1991 Site Development and Operations Plan should be implemented by the Municipality.

NON-CONFORMANCE WITH MINISTRY OF ENVIRONMENT AND ENERGY POLICIES AND GUIDELINES

3. *MOEE Policy 15-08: "Incorporation of the Reasonable Use Concept Into M.O.E.E Groundwater Management Activities"*

   The Township has not conducted a Reasonable Use Assessment of the groundwater adjacent to the landfill site. Resolution of the above-noted deficiencies would also satisfy this policy.

4. *"Guidance Manual For Landfill Sites Receiving Municipal Waste - November, 1993"*

   It is recognized that this document is not well known to many municpalities; however, the operating authority is not conforming with the guidlines offered.

5. *MOEE Policy 14-08-01 "BURNING AT LANDFILLING SITES"*

   Complaints have not been received concerning burning at the site; however, procedures are not well defined for burning wood and brush at the site.

11 RECOMMENDATIONS

1. **The municipality is operating in compliance with the current Provisional Certificate of Approval, however, the approval should be re-issued to include implementation of a Development, Operation, and Closure Plan which includes a Contingency Plan, Monitoring Program, and Wood Burning Instructions.**

2. **The Municipality may wish to consider the establishment of a Municipal Waste Management Committee to oversee waste management programs in the community.**

3. **The D&O plan contains an annual report form; however, no submissions were located in Abatement files.**

4. **The Municipality should consider adopting a policy for training municipal staff on duties related to the operation, development, and closure plan, Ontario Regulation 347 (especially Section 11), Certificate of Approval Requirements (when available), MOEE Guidance Manual (Appendix 'D"),**

and formal training courses available.

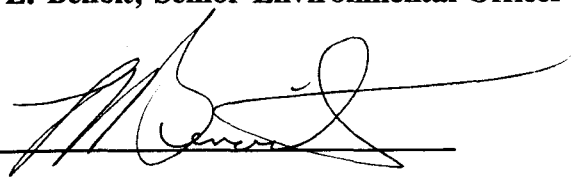
5. **The site entrance sign should be improved to include the name and telephone number of the operator of the landfill, waste types accepted, wastes prohibited, persons allowed to use the site, and emergency telephone numbers.**

6. **The Municipality should obtain a copy of the M.O.E.E. publication "Guidance Manual For Landfill Sites Receiving Municipal Waste - November 1993" and implement practices summarized in synopsis contained in Appendix "E".**

Date of report: March 28, 1995

The above report is a compilation of information obtained for the purposes of the Compliance Inspections conducted on September 2, 1994 and January 27, 1995 and does not imply by omission that the facility meets or does not meet all applicable laws and regulations.

Provincial Officer/Inspector: **Larry L. Benoit, Senior Environmental Officer**

Signature: 

APPENDIX A CERTIFICATES OF APPROVAL

Ontario
Ministry of the Environment

Provisional Certificate No.
471601

PROVISIONAL CERTIFICATE OF APPROVAL
FOR A
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:

Township of South Plantagenet,
Fournier, Ontario.

for the landfill
located lot 3, concession 14,
Township of South Plantagenet

Site

subject to the following conditions:

This Provisional Certificate expires on the 15th day of April, 1975

Dated this 7th day of May, 1975

D. P. Caplick
DIRECTOR, SECTION 3 (a) E.P.A.

SE

Ontario
Ministry of the Environment

Provisional Certificate No.
A 471801

PROVISIONAL CERTIFICATE OF APPROVAL
FOR A
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:

Township of South Plantagenet,
Fournier, Ontario.

MINISTRY OF THE ENVIRONMENT
JUN 1 1976
CORNWALL

for the **landfilling** Site
located **lot 3, concession 14,**
Township of South Plantaganet,
County of Prescott & Russell

subject to the following conditions:

THIS IS A TRUE COPY OF THE ORIGINAL CERTIFICATE MAILED
ON 15
(Signed)

This Provisional Certificate expires on the **15th** day of **April**, 19 **77**

Dated this **3rd** day of **June**, 19 **76**

D. P. Caplice
DIRECTOR, SECTION 3 (a) E.P.A.

Ministry of the Environment

Ontario

NOTICE

TO: Township of South Plantagenet,
Fournier,
Ontario.

You are hereby notified that Provisional Certificate of Approval No. 471801 has been issued to you subject to the conditions outlined therein.

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

This procedure has been found to cause indiscriminate dumping of waste in areas other than working areas of sites contributing to disorderly operation thereof and because it causes air pollution.

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.

This Notice should be served upon:

Environmental Appeal Board,
365 Bay Street,
Suite 300,
Toronto, Ontario.
M5H 2V3

AND

The Director,
Waste Management Branch,
Ministry of the Environment,
880 Bay Street, 3rd Floor,
Toronto, Ontario.
M5S 1Z8.

DATED at Toronto this 10th day of April , 1974 .

Ontario

Ministry of the Environment — Waste Management Branch

Provisional Certificate No. 471801

PROVISIONAL CERTIFICATE OF APPROVAL FOR A 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: Township of South Plantagenet, Fournier, Ontario.

for the Landfill Site.

located Lot 3, Concession 14, Township of South Plantagenet.

subject to the following conditions:

1. That the practice of open burning of domestic wastes shall be discontinued.

DEPARTMENT OF THE ENVIRONMENT ONTARIO
MAY 17 1974
KINGSTON OFFICE

This Provisional Certificate expires on the 15th day of April, 1975

Dated this 18th day of April, 1974.

DIRECTOR, WASTE MANAGEMENT BRANCH

Phone: 965-7752

May 8, 1973

Township of South Plantagenet,
Fournier,
Ontario.

Dear Sir,

This site (facility) does not meet the standards required by the Environmental Protection Act and Regulatic

A Provisional Certificate of Approval No. ~~471801~~ has been issued with an expiry date of ~~April 15th, 1974~~ During this period the following improvements shall be implemented and maintained:

All waste materials shall be covered with six (6) inches of earth cover material, at least once per week, by a proper landfilling operation.

The operation of the site (facility) will be inspected periodically prior to the expiry date of the certificate. Failure to comply with this program of upgrading the site (facility) may result in refusal to reissue this certificate or such other action as is available under the Act.

Yours truly,

W. Williamson P. Eng.,
Acting Director.

ONTARIO

Ministry of the Environment

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

Provisional Certificate No. 471801

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

Township of South Plantagenet,
Fournier, Ontario

for the Landfill Site

located North West corner of Lot 3, Concession 14
Township of South Plantagenet,

subject to the following conditions

1. That the site be adequately fenced and locked to prevent unauthorized entry and that all disposal operations be supervised when site is open to the public.
2. That open burning be undertaken in accordance with Air Quality Branch directions.
3. That Ontario Regulations 824 Section 10 (1) be complied with articularly: Item 12- by the provision of supervision of the site.
   Item 16- by the provision of fencing and a lochable g

This Provisional Certificate expires on the 30th day of April, 19 73

Dated this 25th day of August 19 72

Director, Waste Management Branch

FORM WM 308-2-72

Std. 2

ONTARIO

Department of Energy and Resources Management

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

Certificate No. 471901

Under **The Waste Management Act, 1970** and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to

Township of South Plantagenet,

Found P.

Ontario.

for the Landfill Site

located on the west corner of Lot 3, Concession IV

subject to the following conditions

DEPARTMENT OF THE ENVIRONMENT ONTARIO
SEP 30 1971
WASTE MANAGEMENT BRANCH KINGSTON OFFICE

This Provisional Certificate expires on the 31st day of August 19 7.

Dated this 27th day of September 19 7.

Director, Waste Management Branch

ONTARIO

Department of Energy and Resources Management

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

Certificate No. 471801

Under **The Waste Management Act, 1970** and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to

Township of South Plantagenet,
Fournier, Ontario.

for the Landfill Site

located N. W. corner, Lot 3, Concession 14,

subject to the following conditions

1. Site to be inspected by this Branch and recommendations for improvements made by expiry date.

This Provisional Certificate expires on the 31st day of July 19 71.

Dated this 29th day of January 19 71.

Director, Waste Management Branch

W.M.B. Form 2.03

Ontario

Ministry of the Environment

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

Provisional Certificate No. 471801

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

Township of South Plantagenet,

Fournier, Ontario.

for the Landfill Sit

located North West corner of Lot 3, Concession 14

Township of South Plantagenet

subject to the following conditions

1. That the practice of open burning of domestic wastes shall be discontimued.

This Provisional Certificate expires on the 15th day of April, 19 74

Dated this 8th day of May, 19 73

Director, Waste Management Branch

MOE 14-201

Ministry of the Environment

Ontario

NOTICE

TO: **Township of South Plantagenet, Fournier, Ontario.**

You are hereby notified that Provisional Certificate of Approval No. **471801** has been issued to you subject to the conditions outlined therein.

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

This procedure has been found to cause indiscriminate dumping of waste in areas other than working areas of sites contributing to disorderly operation thereof and because it causes air pollution.

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.

This Notice should be served upon:

Environmental Appeal Board,
365 Bay Street,
Suite 300,
Toronto, Ontario.
M5H 2V3

AND

The Director,
Waste Management Branch,
Ministry of the Environment
880 Bay Street, 3rd Floor,
Toronto, Ontario.
M5S 1Z8.

DATED at Toronto this **8th** day of **May**, 19 **73**.

APPENDIX B LOCATION MAP

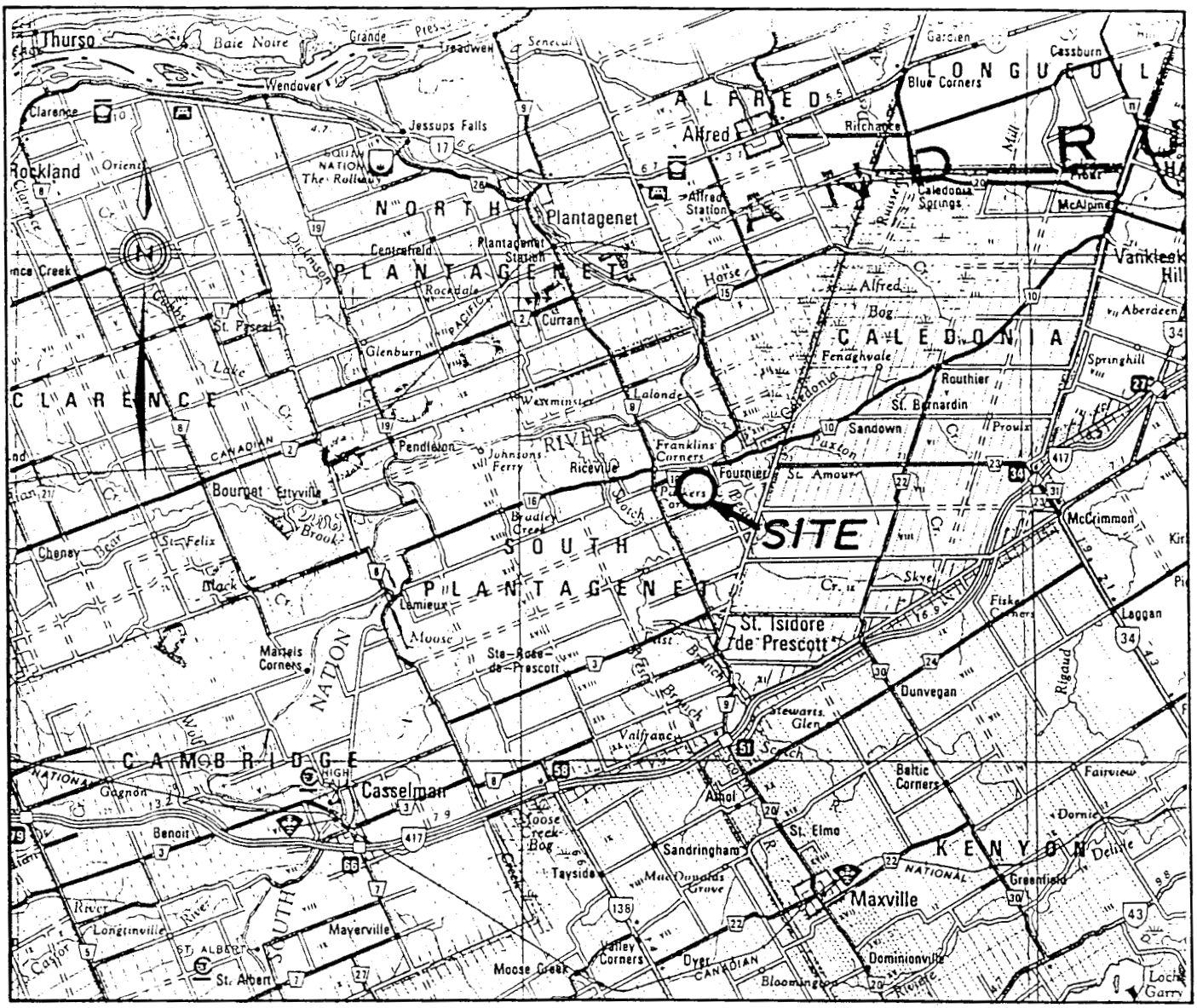


FIGURE 1.0
KEY PLAN
LANDFILL SITE
TOWNSHIP OF SOUTH
PLANTAGENET

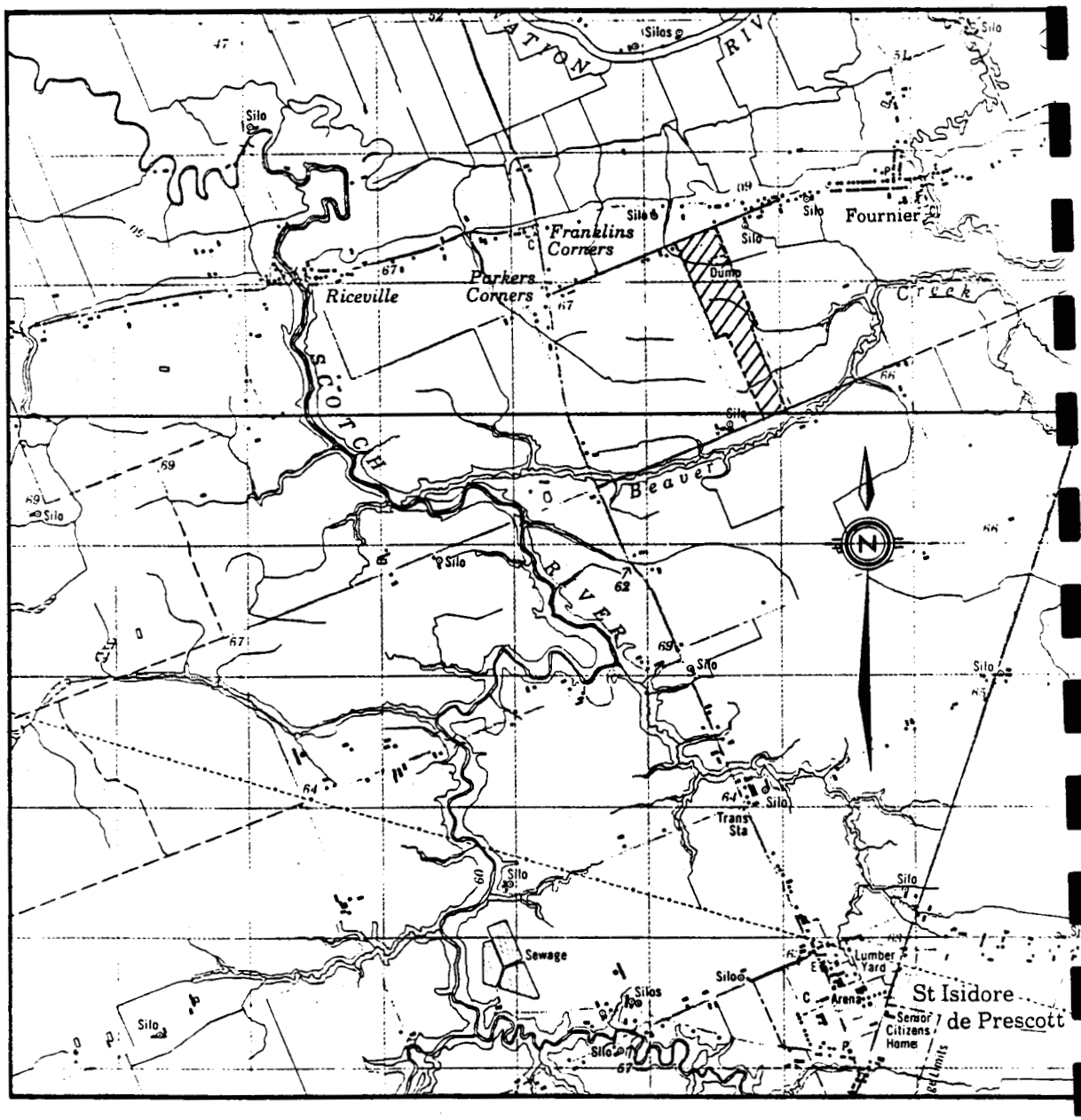
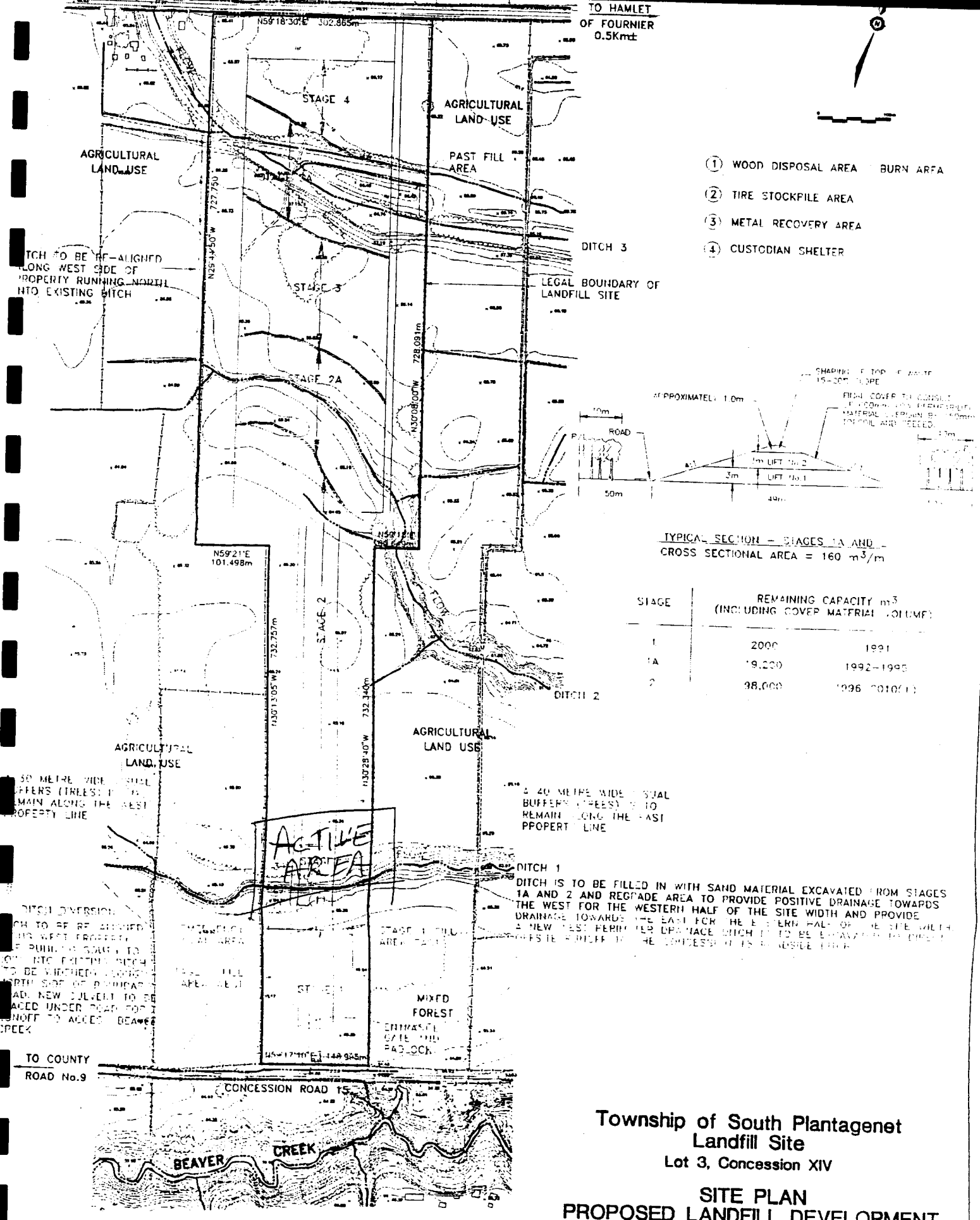


Figure 1: Site Location Map



STAGE	REMAINING CAPACITY m3 (INCLUDING COVER MATERIAL VOLUME)	
1	2000	1991
1A	19,200	1992-1995
2	98,000	1996-2010(+)

Township of South Plantagenet Landfill Site

Lot 3, Concession XIV

SITE PLAN PROPOSED LANDFILL DEVELOPMENT PLAN AND SECTION

FIGURE 3.0

APPENDIX C EXCERPTS OF HYDROGEOLOGICAL STUDY

HYDROGEOLOGICAL INVESTIGATION

TOWNSHIP OF SOUTH PLANTAGENET

MUNICIPAL LANDFILL SITE

FEBRUARY 1991

STANCON PROJECT #90-78

EXECUTIVE SUMMARY

The South Plantagenet Township Municipal Landfill site is located on Lot 3, Concession XIV, Township of South Plantagenet, Prescott County.

The site is located on an area of flat land surrounded by agricultural lands. There are actually two landfill areas on site;

(1) the past fill area located on the northeast end of the site: and
(2) the current fill area located on the south end of the site.

The hydrogeologic environment at the site is relatively simple. An unconfined sand aquifer approximately 4 to 9 metres thick overlies a thick silty clay unit. There are very few records of drilled wells in close proximity to the site. Most water supply wells are known to exist as dug wells in the area. Water qualities in the confined aquifers are reported to be poor.

Drainage courses at both the past and current fill area pass relatively close to the waste fill. At the past fill area the drainage ditch has overrun its edges to form a small swamp located only 15 m south of the waste piles. This flooding is believed to have been caused by a nearby Beaver dam blocking the drainage ditch. The ditch flows westwards across the site and then turns northwards towards the South Nation River. The current fill area is located less than 50 m south of another drainage ditch. This ditch flows eastwards and drains into Beaver Creek.

The confining clay layer results in high pore water pressures in the unconfined aquifer and resultant quicksand conditions noticed during drilling. Water table measurements indicate the water table lies at depths between 2 and 3 metres across most of the site.

The hydrogeologic unit expected to contain most or all of the contamination produced on site is the unconfined water table aquifer. This consists of a fine to medium grained sand gradually becoming finer grained with increased depth.

This unit appears to be laterally continuous and extensive. The hydraulic gradients within this unit are very gentle. Water table mounding within the wastes will result in localized radial flow from the fill area. Contamination within this unit does not appear to have progressed beyond property boundaries.

The occurrence of ditches in close proximity to the fill areas provides a direct route for contaminants, via direct runoff and groundwater discharge, to reach surface water courses. Water qualities at surface water sampling point S2 suggest some migration of leachate may have occurred via this route at the past fill area. It is more difficult to determine if this is occurring at the current fill area, however, elevated COD's and DOC's suggest that the migration of leachates from this site may also be occurring towards the drainage ditch.

The major concern identified during this study is the potential degradation of water quality in the unconfined aquifer. There is no evidence to suggest that offsite impacts have occurred within the surficial aquifer due to landfilling operations. Due to the natural effectiveness of surface water as a dilution medium and poor water quality of Beaver Creek, the impact of the current fill area on the quality of Beaver Creek has been shown to be negligible. The potential degradation of neighbouring property uses, in particular the farming operations on the neighbouring properties to the west and south is not of concern at this time.

A monitoring programme has been designed for the site with an emphasis on gathering more information for the confirmation of the findings of this study and providing the larger database required for predictive modelling of off-site impacts.

This includes:

(1) Installation of two additional piezometers, one at each landfill area, to aid and confirm the calculations of hydraulic gradients and groundwater flow directions.

(2) Sampling of the piezometers on site in the summer and fall of 1991 for indicator leachate parameters only;

(3) Water level measurements and stream flow determinations for the ditches in the spring, summer and fall;

(4) In-situ hydraulic testing to determine hydraulic conductivities of the surficial sands; and

(5) Sampling of the rivers and ditches at six locations in the summer and fall for indicator leachate parameters.

The programme for following years includes annual surface water sampling and annual groundwater sampling on site.

1.0 INTRODUCTION

StanCon Groundwater Engineering Limited (StanCon) was contracted by the Township of South Plantagenet in September of 1990, to conduct a preliminary hydrogeological assessment of an existing landfill site on Lot 3, Concession XIV, in the Township of South Plantagenet, Prescott County (Figure 1). The landfill is owned and operated by South Plantagenet Township and is divided into two areas: a past fill area and a current fill area. The past fill area is located on the northeastern end of the property. The current fill area is located on the southern end of the property (Figure 2).

At the on-set of the study there were no monitoring stations on site or monitoring programmes being carried out at the site. Available information on the site was limited. One study, conducted by the Kostuch Engineering relating to a study on the potential for a communal sewage system for the nearby town of Fournier provided some background information on water qualities in the surficial aquifer and surface water courses in the area.

The purpose of this study was to: determine the hydrogeological suitability of the site for the continued operation of a municipal landfill; and to develop a monitoring programme for continued site monitoring.

1.1 Method of Study

All available information pertaining to the site and surrounding areas was reviewed. This included available geological maps and engineering reports. Very few MOE well records are available for the area due to the predominance of dug wells (Appendix A).

A field traverse was conducted on September 24, 1990 in order to gain an understanding of general site characteristics around the current fill area. Discussions were held with the landfill operator to gain information on soil conditions and the depth to water table on site. Water samples were collected from four nearby homes to establish background water quality data for the area around the current fill area.

After this preliminary visit a detailed field programme was developed for the site. This included the drilling and installation of six single level piezometers on site; three at the old fill area, and three at the current fill area; the taking of water level measurements; and sampling of the piezometers, surface water ditches, Beaver Creek and residences in the vicinity of the past landfill area.

A geophysical survey using an EM 34-3 terrain conductivity metre with 20 m coil separation was also conducted in an effort to map the conductive contamination (leachate) on site at the past fill area. Funds were not available to conduct a similar study at the current fill area.

This report details the findings of the hydrogeological study and presents recommendations and conclusions based on hydrogeological information only. Consideration has not been given here for any economic, political, sociological or operations aspects of the site.

2.0 PHYSIOGRAPHY AND GEOLOGY

2.1 Topography and Drainage

The site is located on an area of flat land on the southern side of an ancient river terrace. Elevations across the site vary very little. Drainage ditches provide drainage for the site. There were no areas of ponded waters visible within either the past or current fill areas.

The swamp at the southern edge of the past fill area is relatively small, confined to the area immediately surrounding the drainage ditch. It is believed that the swamp has been recently formed by blockage of the ditch by a beaver dam. Off-site to the east, this ditch becomes more pronounced as a man made ditch with flows visibly occurring westwards towards the site. This ditch eventually drains northwards into the South Nation River.

The ditch which runs north of the current fill area drains eastwards discharging into Beaver Creek. Beaver Creek flows westwards draining into the Scotch River which then drains into the South Nation River to the north.

2.2 Surficial Geology

A thick sequence of overburden materials is present in the vicinity of the site. The uppermost section consists of fine to medium grained deltaic and estuarine sands. Below this a stiff brown/grey silty clay is present which may include lenses, bars and channel fills of sand and pockets of non-marine silt formed during terrace (or channel) cutting. The degree of interconnection between these inclusions is unknown. A sand and/or gravel unit of variable thickness occurs beneath the clay overlying bedrock, however this unit is laterally discontinuous and may not be present at the site (MOE well records - Appendix A).

Actual thicknesses of each unit may vary, however, the upper sand is believed to be between 5 and 10 metres thick; the clay is on the order of 20 to 50 metres thick and the black gravel varies from 0 to 10 metres thick. The overall thickness of the overburden sequence is expected to be between 30 and 50 metres. The lack of drilled wells in the area renders confirmation of this difficult.

- Should be confirmed with pizometers.

2.3 Bedrock Geology

A review of bedrock geology maps for the area reveals that the site is underlain by the shales and limestones of the Eastview and Ottawa Formations.

3.0 FIELD PROGRAMME

A field traverse of the current fill area and sampling of nearby residential dwellings was undertaken in September 1990. This study flagged areas of interest or concern for follow-up in the more intensive field programme.

The extent of leachate migration at the past fill area is apparent from the geophysical survey (Figure 5). The contaminated waters have spread radiall outwards from the fill area. The horizontal hydraulic gradient in the area is very weak which appears to have limited the migration of leachates any great distance from the fill area in the direction of groundwater flow. Low hydraulic conductivities and resultant slow travel times aid in the containment and treatment of leachates within the surficial aquifer on site. Leachate discharge into the drainage ditch is minimal and is not resulting in a noticeable degradation of surface water quality. No impact is noticed downflow and off site of the landfill site.

The extent of leachate migration at the current fill area similarly shows minima progression from the fill area and no off site impacts. Water quality in the surface drainage course north of the area generally exhibits better water quality than Beaver Creek into which it discharges. Bacterial counts in the ditch, however, are more elevated and may be contributing to the bacterial degradation of Beaver Creek.

7.0 RECOMMENDATIONS

The major concerns on site continue to be the potential degradation of water quality in the surficial water supply aquifers and the surface water courses in the vicinity of the site.

Because of the minimal impact currently observed on site, the low hydraulic gradients, conductivities and resultant low velocities in the surficial aquifer and the large areas still available on site, the site is considered hydrogeologically suitable to continued operations if the following conditions are met:

(1) Minimum set back of the landfilling area from surface water courses (including drainage ditches) of 60 metres.

(2) Minimum setback of the landfilling area from property (not licenced site) boundaries of 50 m to allow for an adequate travel time for leachates to react and dilute before reaching site boundaries.

(3) Past fill areas are covered with a low permeability soil material and revegetated with grasses and small shrubs to aid in evapotranspiration (thereby reducing rainfall infiltration) and erosion control of the new cap.

7.1 Monitoring Programme

The following monitoring programme has been designed to provide further information regarding the movement of leachates on site and to provide continuous monitoring of the progression of leachates from the past and current fill areas.

Two additional monitoring wells are recommended for the site; one for the past fill area within Area C, as identified by the geophysical survey, and the other at the southern end of the currently active fill area. Both locations are identified on Figure 6. The purpose for these is to correlate groundwater chemistries more closely with the results of the geophysical survey and to provide an early warning of leachate progression from the current fill area in the direction of groundwater flow towards the closest site boundary.

A geophysical survey using a 10 m coil separation on a 10 m x 10 m grid is also recommended for the current fill area. This survey should cover areas surrounding the fill by at least 50 m in all directions in an effort to map conductive plume migration from the waste mounds.

Existing piezometers on site should be monitored for water level variations in the spring (May), summer (August) and fall (November) of 1991. Data can be used to calculate variations in hydraulic gradients with seasonal changes and to verify initial interpretations. The piezometers should also be sampled for indicator leachate parameters (Table 2 and 5) in the summer (when dilution due to rainfall is at a minimum) and fall of the year 1991, (when dilution is high) to establish a database for further analyses of site impact. In-situ hydraulic testing of the piezometers should be performed to verify preliminary analyses of hydraulic conductivities necessary to a predictive modelling of site impact and off-site impacts. This would be required for a complete reasonable use assessment for the site.

Continued groundwater monitoring after 1991 should take place as a minimum once annually during the summer months. Samples should be analysed for the short suite of indicator parameters outlined in Table 2 and The inclusion of geophysical surveys for progressive indications of contaminant migration on site with time is considered suitable to this site. Regular surveying on a four to five year basis over a larger areas as shown Figure 6 could be used in conjunction with continued sampling to monitor t site's compliance with MOE guidelines.

The ditches and Beaver Creek should also continue to be monitored on an annual basis when flows are at their lowest in the summer. Stream flow measurements should be taken in the spring, summer and fall of 1991 to establish flow characteristics of the ditches. Samples should be taken twice 1991; during the summer when flows are low and during the fall to provide further data necessary for the analysis of potential long term impacts. Recommended sampling locations are shown on Figure 6. These have bee chosen such that samples are taken both up and down stream in the ditches on site and of the confluence of the ditch at the current fill areas confluence with Beaver Creek.

7.2 Contingency Plan

If off-site impacts occur or are anticipated to occur beyond reasonable use limits the township will have to respond immediately with a contingency plan aimed at controlling these off-site impacts.

The recommended preliminary contingency plan for this site consists of the following:

(1) Immediate geophysical survey of the area in question.

(2) Follow up installation of additional monitoring wells if necessary.

(3) Sampling of all monitoring wells in vicinity of the "problem".

The development and design of a more detailed contingency plan will be undertaken following review of the information to be gathered in the 1991-1992 field season. This will include remedial measures aimed at correcting the problems anticipated.

Respectfully Submitted,

Linda C.M. Elliott, M.Eng.,
Hydrogeologist

APPENDIX D EXCERPTS OF SITE DEVELOPMENT AND OPERATIONS PLAN

TOWNSHIP OF SOUTH PLANTAGENET
SITE DEVELOPMENT AND OPERATIONS PLAN
FOR
WASTE DISPOSAL SITE
LOT 3 CONCESSION 14

PROJECT NO. M-2940

February 1991

MOE

McNEELY ENGINEERING

consulting engineers · ingénieurs conseils

1.0 INTRODUCTION

The Township of South Plantagenet operates a landfill site located on Part of Lot 3, Concession 14, County of Prescott (Figure 1.0). In 1990, the Township, with the financial assistance from the Waste Management Improvement Program (WMIP) of the Ministry of the Environment, authorized McNeely Engineering Ltd. by resolution of Council dated August 20, 1990, to complete a Waste Management Improvement Study on the South Plantagenet landfill site. This study would consist of a hydrogeological investigation and a site operation and development plan which were to be completed prior to March 1, 1991. The project was undertaken jointly by McNeely Engineering Ltd. and StanCon Groundwater Engineering Ltd.

StanCon Groundwater Engineering Ltd. would be responsible for the hydrogeological and geophysical investigation. McNeely Engineering Ltd. would undertake the survey work, preparation of the existing site plan, development of future landfill, estimate reserve capacity and provide for project coordination and budget control.

2.0 BACKGROUND

2.1 Location

The Township of South Plantagenet owns and operates only one waste disposal site located on Lot 3, Concession 14, in the south-eastern part of the Township. The disposal site location is shown on the key plan, Figure 1.0, and detailed further on the legal plan, Appendix C.

Access to the current disposal area at the south end of the landfill is via Concession Road #15, a gravel surfaced road which connects to County Road

No. 9, a 2 lane hard top road which traverses the Township on an N-S basis. Most residents in the Township access the present site through this road.

A second Township road called Desforges Road, located near the hamlet of Fournier, provides access to the 15th Concession Road and the landfill site for residents located near the hamlet of Fournier. The 15th Concession road is generally in good condition all year round except for some minor problems with rutting and pot holes during spring thaw.

2.2 Population and Service Area

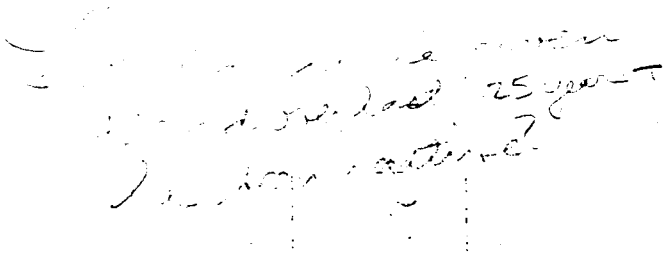
The Township of South Plantagenet's landfill site was initially registered with the Waste Management Branch of the Department of Energy and Resources Management on August 4, 1971. The original application, Appendix A, indicated that the service population was 1840 people. The site was to service only the residents of the Township of South Plantagenet including the hamlets of Fournier, Lemieux, Ste-Rose, Pendleton and Riceville.

Table 1 shows the historical population growth for the period 1961 to 1988. Over this 27 year period, an average negative growth of 1.6 % was measured. One of the major reasons for this decline is due to the economic shift away from agriculture which caused many families to relocate closer to the urban centres for employment. As the Regional Municipality of Ottawa-Carleton expands and the commercial opportunities that it creates for employment shifts eastward, some people will be relocating to the Township of South Plantagenet and the surrounding areas because of the lower cost of living. The Township also lies adjacent to the Highway 417 corridor, a 4 lane commuter highway between Montreal and Ottawa and is near King's Highway 138 which

leads to the United States. These factors in the next 20 years will make the Township an attractive area for urban dwellers willing to live in a rural setting, and willing to commute to larger centers to work.

In order to estimate future population growth, we have reviewed the background report to the Township's Official Plan which predicts a growth of 0.5% over the next few years. If the Township is to experience growth in the next 20 years because of its surroundings to urban centres, we can look for guidance at the growth experienced by the Township of Clarence over the last few years (1971 - 1981) as indictors of growth potential. This community has grown at rates of 2 - 6% per annum.

For the purposes of this study, we have optimistically projected a population growth of 2% for the next twenty years. At this growth rate, Table 2, the Township's population would reach 2440 by the year 2010. The Township's landfill site will continue to serve the same service area as indicated in their original application for a landfill site, 1971.



Contingency Plans for Emergency

The following concerns will be addressed for emergency purposes.

(1) Emergency Disposal Area

The ramp along the westside of Stage 1 will be used as an emergency disposal area. This area is large enough to accommodate at least 2 weeks of garbage. Any waste placed here during emergencies will later be transported to the licensed disposal area. This same area also serves as the area for disposal of solid non hazardous industrial waste.

(2) Fire Control

In the case of a fire in the waste pile, the sand earth berms located to the north of each cell can be used to smother the flame. The Fire department, located in the nearby hamlet of Fournier is also readily available to assist in extinguishing fires.

The custodian will also have readily available in his shelter some fire fighting equipment such as an axe, fire extinguisher, safety goggles, gloves, boots and first aid kit.

? 3) Discussion of vermin/rats)

3.3.3 Closure Plan

When the final lift of Stage 2, as shown in Figure 3 has been completed, a low permeability material or equivalent barrier will be required over the waste pile to minimize infiltration. The section in Figure 3 identifies the final cover to be a 600 mm thick low permeability material and is overlain by 150 mm of topsoil. While this is likely the minimum required, it will be necessary to conduct a more thorough evaluation for final cover once more information on groundwater contamination has been gathered. As noted earlier, a 3(H):1(V) side slope for the final cover and a 10%-20% grade on the top are adequate for surface runoff and not steep enough to cause erosion problems.

Cover Details

The development and operation plan indicates that a minimum of 600 mm of low permeability material would be placed over the existing waste as final cover. This material would then be covered with 150 mm of topsoil and seeded. Because the South Plantagenet landfill site is located on silty sand and there is potential for off site contamination of groundwater, McNeely Engineering recommends that final cover details not be specified until closure is required. The final cover should be designed so that it satisfies the recommendations made by the hydrogeological consultant from the results of groundwater monitoring. This plan would be submitted to the Ministry for approval the year prior to closure.

The Township may have to consider:

- increasing the thickness of the clay liner to reduce infiltration or
- use a sand/bentonite soil mixture instead of clay or
- use a geomembrane or
- composite liner

The cost, applicability, and advantages and disadvantages for each of these options should be evaluated at closure and the option that best meets the overall objectives to be implemented.

The Township shall retain the services of a geotechnical engineering firm to identify:

- use of suitable material for use in cover
- compaction of the soil at the proper water content
- use of the proper type of compaction equipment to achieve design objectives
- material, compaction, hydraulic conductivity testing and inspection
- quality assurance

Staging of Closure

The Township presently uses the fine silty sand found on site for interim cover material. If the results of the on-going surface and groundwater monitoring indicate that remedial measures are necessary to reduce leachate generation, the Township shall consider placing a low permeability material over areas of existing waste that have been brought to final grade, as shown on the attached plan (Figure 7).

3.4 Waste Management Master Plan

The Township of South Plantagenet does not participate in a Waste Management Master Plan. The Township of South Plantagenet has adequate capacity at its present landfill to serve its residents for more than the next 35 years. The Township is aware of the problems with lack of landfill capacity with some of the surrounding municipalities and has strongly promoted recycling within the Township. These initiatives are described further in Section 3.5.

3.5 Waste Reduction, Reuse, Recycling Initiatives

The Township of South Plantagenet acknowledges that initiatives for waste reduction, recycling and reuse must play an important role in diverting waste from the landfill to achieve the Provincial waste diversion target of 25 percent by 1992. While these initiatives cannot completely solve the waste problem, it can reduce the size of the problem. South Plantagenet Township is undertaking the following measures to implement the 3R's initiative, in association with current landfilling practices by:

We hit about 50% diversion by 2000.

(1) Providing education to Township residents about the benefits of composting and waste reduction.

(2) The Township is considering implementing a garbage collection system for the entire Township by the fall of 1991. Going to a collection system will mean increased compaction of wastes going into the landfill site.

(3) Once the collection system is in place, the Township will consider implementing a curbside recycling program, starting with newspaper in the fall of 1991 and increasing the scope of collection to include other materials shortly thereafter.

3.7 Annual Reporting

McNeely Engineering have prepared a standard format that it uses to summarize the most important information contained in the Operations report and the Hydrogeology report prepared by StanCon Groundwater. This abbreviated form can be readily updated yearly to show volumes of waste placed annually, estimate remaining capacity and provide a summary of groundwater and surface water monitoring. Appendix E contains a completed report for the year 1990.

APPENDIX E SUMMARY OF OPERATIONAL PRACTICES AT LANDFILL SITES

GUIDANCE MANUAL

FOR LANDFILL SITES

RECEIVING MUNICIPAL WASTE

NOVEMBER 1993

Ontario

Ministry of
Environment
and Energy

4.25 SUMMARY OF OPERATIONAL PRACTICES AT LANDFILL SITES

The tables presented in this subsection provide a summary of typical landfill practices necessary to meet requirements stipulated by Acts, regulations, or otherwise necessary for approval. The tables also include operational features, beyond and above minimal requirements, but may be necessary due to site conditions in order to achieve good waste disposal practices. The tables are not intended as a comprehensive check-list covering all possible considerations in operation and management of landfill sites. **The requirements for a landfill site are determined on a site-specific basis, and upon approval of the site, described in the Certificate of Approval and the approved Design and Operations Plan.**

Feedback received from the past public consultation process indicated that landfill regulations and requirements were general and believed to be more applicable to larger landfill sites. Small municipalities have stated that it would be unreasonable to impose the same requirements of the large landfills for small and remote sites. Existing regulations and guidelines on waste management practices, including Regulation 347, do not provide distinctions between the operational standards for landfills of differing size. For the purposes of Subsection 4.25, the concept of categorizing landfill sites as small, medium and large is introduced to illustrate operational practices that can be implemented to achieve efficient and effective landfilling that will protect the environment and public health and safety. The tables should be especially useful with respect to small or medium sites.

Landfill sites are categorized as small, medium, or large based on its site capacity, with consideration given to using higher or lower level measures because of specific site conditions and proximity to, and nature of, surrounding land uses. The landfill capacities are based on an assumption of 20 years lifespan of the site. Regardless of site capacity or location, certain minimum operational controls are required. The main objective of landfill site categorization would be that all sites must conform to the minimum standards, however, for medium and large sites, more stringent requirements would apply. Regardless of the minimal operational standards specified in the tables, specific site conditions may allow lower requirements or dictate higher requirements at the discretion of the MOEE.

Small sites can be defined as those sites having a designed lifetime capacity of under 40,000 m^3 and serving populations less than 1,500 people. Generally, these sites would have considerably lesser potential for environmental degradation effects than medium or large landfill sites. For example, landfill sites owned/operated by rural municipalities or the Ministry of Natural Resources would generally fall under the small category.

Medium sites can be defined as sites having designed lifetime capacity of 40,000 to 200,000 m^3. This equates to servicing populations of approximately 1,500 to 7,500 people.

Large sites can then be defined as those sites having designed lifetime capacity in excess of 200,000 m^3 and serves a community of approximately 7,500 people or more.

Adjacent land uses of particular concern, for the purposes of this subsection, include the following existing or proposed land uses near the landfill site:

i) permanent structure used in animal husbandry;
ii) agricultural land for pasturing livestock; or
iii) permanent structure where
- a person sleeps, or
- a person is employed, full-time, for at least three months in a year, but not including food or motor vehicle service facilities adjacent to a highway, utility operations, scrap yards, heavy industrial uses, pits and quarries, mining activities or forestry activities.

LEGAL SURVEY OF THE SITE

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Legal Survey	Survey, undertaken by Ontario Land Surveyor, is prepared for all lands that are used for landfilling waste. Crown lands without legal descriptions are the exceptions, for which, general descriptions and plans of the sites are acceptable.		

** Refer to Subsection 4.2 for details

REGISTRATION ON TITLE

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Registration on Title	The Certificate of Approval is registered on land title for all existing and new landfill sites. For new sites, registration must be completed prior to waste deposition. Unpatented Crown lands are the exceptions, for which, MNR policies should be consulted.		

** Refer to Subsection 4.3 for details

HYDROGEOLOGICAL EVALUATION

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Evaluation and Report	Hydrological evaluation is completed to determine if the site is hydrogeologically acceptable for landfilling.	Hydrological evaluation is necessary for establishment and operation of landfill site.	Hydrological evaluation is necessary for establishment and operation of landfill site.
2. Content and Level of Detail	Content and level of detail are determined on site specific basis, but basic soil assessments including determination of soil properties and water table achieved by back-hoe and/or soil maps are acceptable.	Content and level of detail are determined on site specific basis such as the complexity of the hydrogeological system and consequences of site design failure.	Content and level of detail are determined on site specific basis such as the complexity of the hydrogeological system and consequences of site design failure.

** Refer to Subsection 3.5 for details

SITE OPERATIONS PLAN

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Site Operations Plan	Plan(s) outlines site development, operations, contingency plan, as well as closure and post closure. The Plan should address operational criteria listed in these tables.	Plan(s) details site development, daily operations,environmental control measures, monitoring program, contingency plan, as well as closure and post closure activities. The Plan should address operational criteria listed in these tables.	Plan(s) details site development, landfilling, daily operations,environmental control measures, monitoring program, contingency plan, as well as closure and post closure activities. The Plan should address operational criteria listed in these tables.
2. Preparation of Plan	The Plan can be prepared by the site owner/operator or by a professional knowledgeable in waste management and landfilling techniques.	A detailed and extensive Plan is prepared by professionals who are proficient in waste management and landfilling techniques.	A detailed and extensive plan is prepared by professionals who are proficient in waste management and landfilling techniques.

** Refer to Subsection 3.7 for details

BUFFER

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Operation, maintenance and monitoring	30 m minimum	30 m minimum	30 m minimum
2. Control and corrective measures	30 m	100 m	100 m
3. Nuisance controls	30 m	100 m	100 m
4. Physical separation	30 m	100 m	100 m

** Refer to Subsection 4.4 for details; and Regulation 347, Section 11

ON-SITE ROADS

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Road width	3 m for single lane traffic.	3 m (single lane) and/or 7 m for two way traffic.	Generally all on-site access roads should be 7 m wide for two way traffic.
2. Road surface	Compacted gravel or as appropriate.	Based on truck traffic, compacted gravel or as appropriate.	To support large heavy trucks, compacted gravel or asphalt on roads leading to site offices and main disposal areas.
3. Road drainage	Sloped road surface with roadside ditches.	Sloped or crowned road surfaces, roadside ditches, and culverts if necessary.	Crowned road surfaces, cross drains and culverts, stabilized ditches. Catch-basins with storm water drain pipes if necessary
4. Maintenance	Semi-annual grading and compaction. Emergency repairs year round. Snow clearance, if the site is operational during winter months. Cleaning of ditches semi-annually.	Monthly inspection; grading and compaction every quarter. Emergency repairs year round. On-site equipment for snow clearance. Quarterly clean-out of ditches.	Monthly inspection; grading, compaction, repair/restoration. Emergency repairs year round. On-site equipment for snow clearance. Regular clean-out of ditches, culverts, and drainage works, catch basins and storm sewers.
5. Dust control	Spraying surfaces with water when necessary. Waste oil is not permitted.	Spraying surfaces with water during high winds and as necessary. Waste oil is not permitted.	Regular use of approved dust control measures. Waste oil is not permitted.
6. Control of debris transported off-site	Instruction signs for drivers of leaving vehicles. If warranted, vehicle inspections.	Inspection of vehicles leaving site. Instructions on sign boards for trucks leaving site.	Truck washing facilities available on-site. Signs for drivers of leaving vehicles.

** Refer to Subsection 4.5 for details; and Regulation 347, Section 11

FENCING

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Perimeter Fencing	Natural topographic barriers, page or chain link fence.	Natural topographic barriers with page or chain link fence along adjoining roadways and elsewhere as needed.	Chain link or similar with minimum height of 1.8 m (6').
2. Security Fencing	Lockable gate at entrance.	Chain link fence at entrance with lockable gates and elsewhere as needed.	Chain link fence at entrance with lockable gates and elsewhere as needed.
3. Litter Fencing	As needed.	Moveable litter fences.	Moveable, with permanent litter fences in critical areas.
4. Other Fencing	According to Occupational Health and Safety Act (OHSA) or other regulations.	According to OHSA or other regulations, and as needed to control access to treatment or control works.	According to OHSA or other regulations, and as needed to control access to treatment, control or gas utilization works.

** Refer to Subsection 4.6 for details; and Regulation 347, Section 11

SIGNS

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. As a minimum, one sign at the public entrance(s)	Sign with basic information such as the identity of the owner/operator, time of operations and wastes accepted.	Sign with basic information such as the identity of the owner/operator, time of operations and wastes accepted.	Sign with basic information such as the identity of the owner/operator, time of operations and wastes accepted.
2. Signs along on-site roads	Directions to waste haulers and other users. Basic road safety and warning signs depending on frequency of use.	Directions to waste haulers and other users. Road safety speed limits, hazard warnings and other site-specific needs.	Directions to waste haulers and other users. Road safety speed limits, hazard warnings and other site-specific needs. Signs, hazard warnings, etc. are more frequent than at medium site.
3. Signs at waste disposal locations	Identify areas for unloading waste and stockpiling brush/wood or metal waste and other site-specific needs.	Site-specific, including instructions for disposal and segregation of recyclables	Site-specific, including instructions for disposal and segregation of recyclables with prominent warning signs.
4. Signs at leachate and gas control installations and at monitoring locations	As needed.	Site-specific, with warnings at all hazardous locations and control works.	Site-specific, but with more instructions, safety precautions and hazard warnings.

** Refer to Subsection 4.7 for details

SCREENING

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Extent of screening	Normally from roads, but depends upon distance to nearby land uses.	From roads and nearby land uses, but depends upon distance to nearby land uses	From roads, all nearby land uses, and general view.
2. Best location and types of screening measures	Generally in buffer area. Use of natural features and large separation distance is encouraged.	Generally in buffer area. Fencing & screening berms are usually adequate with natural features and large separation distances.	Generally in buffer area. Fencing & screening berms are usually adequate with natural features and large separation distances. Off-site measures may be needed on a site-specific basis.

** Refer to Subsection 4.8 for details; and Regulation 347, Section 11

SURFACE DRAINAGE

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Run-Off Analysis and analysis of capacity of receiving streams, drainage paths, or storm sewers to accommodate site run-off	Generally not needed.	Depends on site-specific conditions and land-use sensitivity, and significance of off-site watercourses.	Normally needed. To be undertaken by qualified water resources engineer or hydrologist.
2. Types of diversion structures	Ditches, and natural drainage swales, usually sufficient.	Ditches, culverts, diversion berms or dykes and natural drainage swales.	Engineered structures including drainage ditches, culverts, storm water catch basins and storm sewers, berms, retention ponds and natural drainage swales.
3. Methods of discharge off-site	Control structures are not needed if site topography, and geology and off-site land use permits to off-site drainage path, watercourse or municipal ditch.	Controlled discharge to off-site watercourse, drainage path or municipal ditches. Energy breaks, stone pitching, rip-rap protection may be necessary at outlet.	Controlled discharge off-site with energy breaks and erosion controls, to watercourse, preferably with permanent flow. Discharge to municipal storm sewer system.
4. Erosion and sedimentation controls	Stabilized ditches with seeded or sodded bed and slopes.	Stabilized, seeded or sodded ditches, straw bales in ditches, rock check dams, filter berms and sedimentation ponds.	Stabilized, seeded or sodded ditches, straw bales in ditches, rock check dams, filter berms, sedimentation ponds and other means.
5. Sedimentation pond	Generally not needed	Depends on site-specific conditions, off-site land use and importance of off-site watercourses, wetland, etc.	Generally needed, but depends on site-specific conditions, off-site land use and importance of off-site watercourses, wetland, etc.
6. Monitoring of water quality	In accordance with approved monitoring program.	Yes - in accordance with approved monitoring program.	Yes - in accordance with approved monitoring program.
7. Treatment prior to discharge	Generally not needed but depends on monitoring results.	Generally not needed but depends on monitoring results.	Depends on monitoring results and on local municipal storm water by-laws, or assimilation capacity of receiving stream.
8. Maintenance program	Generally, inspection and clean-out of ditches in spring and fall.	Quarterly inspection and clean-out of all drainage control works. Regular grading of fill areas.	Monthly inspections, quarterly clean-out of all drainage control works. Regular grading of fill areas. Clean-out of sedimentation ponds in accordance with approved maintenance program. Semi-annual check on integrity and stability of all drainage control works.

** Refer to Subsection 4.9 for details; and Regulation 347, Section 11

LEACHATE CONTROL

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Design Concept	Natural attenuation of the leachate.	Natural attenuation with leachate controls as required by site conditions.	Generally, leachate control facilities are needed.
2. Collection method (new sites)		Perimeter or underdrain collection system.	Perimeter or underdrain collection system.
3. Collection method (remedial actions)	Interceptor trench, toe drain, purge wells, barrier walls on a site-specific basis.	Interceptor trench, toe drain, purge wells, barrier walls on a site-specific basis.	Interceptor trench, toe drain, purge wells, barrier walls on a site-specific basis.
4. Access to system		Needed for cleaning, maintenance, contingency use.	Needed for cleaning, maintenance, contingency use.
5. Leachate handling - the level depends on: site conditions, leachate characteristic, and the availability of sewer system, wastewater treatment facilities and receiving water bodies	None needed - generally natural attenuation is adequate;	None needed if natural attenuation is adequate; or Collection, on-site pretreatment with discharge to sanitary sewer or haul off-site to WPCP.	Collection for off-site treatment; or Collection, on-site pretreatment with discharge to sanitary sewer or haul off-site to WPCP.
6. Approvals for leachate collection, treatment and haulage	EPA, Part V and Regulation 347.	EPA, Part V and Regulation 347.	EPA, Part V and Regulation 347.
7. Approvals for leachate treatment and off-site discharge.	Municipal consent for discharge to sanitary sewer or municipal WPCP. OWRA for discharge to storm sewer, watercourse, or water body.	Municipal consent for discharge to sanitary sewer or municipal WPCP. OWRA for discharge to storm sewer, watercourse, or water body.	Municipal consent for discharge to sanitary sewer or municipal WPCP. OWRA for discharge to storm sewer, watercourse, or water body.

Leachate control, including containment, collection, handling and treatment, is considered and assessed on a site-specific basis. When required, the methods employed should be state of the art using the best available technology that is economically available.

** Refer to Subsections 3.3 and 4.10 for details; and Regulation 347, Section 11

GAS CONTROL

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Gas migration control facilities	Generally not needed.	Site conditions determine the need.	Generally needed.
2. Preferred method to deal with migrating gas	Adequate buffer area.	Adequate buffer area.	Collection and flare or energy utilization.
3. Investigation for gas migration	Determine if the buffer is adequate in preventing off-site migration of landfill gas. As a rule, for each depth of waste fill, there is potentially 10 times lateral distance of significant gas migration. Determine extent and concentrations of gas migration, verify stratigraphy, locate water table, or bedrock surface, determine limit of fill Relate observed condition to seasonal changes.	As a rule, for each depth of waste fill, there is potentially 10 times lateral distance of significant gas migration. Determine extent and concentrations of gas migration, verify stratigraphy, locate water table, or bedrock surface, determine limit of fill. Relate observed condition to seasonal changes.	As a rule, for each depth of waste fill, there is potentially 10 times lateral distance of significant gas migration. Determine extent and concentrations of gas migration, verify stratigraphy, locate water table, or bedrock surface, determine limit of fill. Relate observed condition to seasonal changes.
4. Gas interceptor system - barrier, passive, or active	Generally not needed.	If needed, choice depends on - depth of excavation required, - sustained integrity of liner materials, - permeability and diffusion potential of adjacent native materials, - the ability to achieve negative pressure in the soil along the landfill boundary without or with the use of a fan.	Choice depends on - depth of excavation required, - sustained integrity of liner materials, - permeability and diffusion potential of adjacent native materials, - the ability to achieve negative pressure in the soil along the landfill boundary without or with the use of a fan.
5. Design standards for barriers, passive and active venting system	Generally, gas control facilities are not necessary.	As needed to prevent migration from landfill site.	As needed to prevent migration from landfill site; commonly designed to facilitate increase in volume of landfill gas over time (piping and fan capacities).
6. Safety considerations during construction	Generally, gas control facilities are not necessary.	Be aware of malodorous and combustible gases and follow a Health and Safety Plan.	Be aware of malodorous and combustible gases and follow a Health and Safety Plan.
7. Emission standards for gas control facilities.	Generally, gas control facilities are not necessary.	Set in a site-specific way by approval under Section 9 of EPA.	Set in a site-specific way by approval under Section 9 of EPA.
8. Contingency flaring	Generally not necessary.	Generally not needed, but depends on adjacent land use and emission level.	Generally needed, but depends on adjacent land use and emission level.

** Refer to Subsections 3.4 and 4.11 for details

CONTINGENCY PLAN

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Immediate response plan for fires, accidents, spills, etc	Preparation of site-specific plans and arrangements for outside assistance.	Preparation of site-specific plans and arrangements for outside assistance.	Preparation of site-specific plans and significant on-site capabilities.
2. Ground water contamination	Needs consideration.	Site-specific plan.	Site-specific plan.
3. Gas migration	Needs consideration.	Site-specific plan.	Site-specific plan.
4. Surface water contamination	Site-specific plan.	Site-specific plan.	Site-specific plan.
5. Equipment failure	Alternative operating plan, with arrangements to secure replacement equipment.	Alternative operating plan, with arrangements to quickly secure replacement equipment.	Backup capability needed on-site to avoid delays in waste disposal.
6. Financial assurance	Normally required for private site. May be required for municipal site.	Normally required for private site. May be required for municipal site.	Normally required for private site. May be required for municipal site.

** Refer to Subsection 4.12 for details; and Regulation 347, Section 11

SITE PREPARATION REPORT

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Site preparation report contents	Describe the readiness of the site to receive waste as per approved plans. The Report is normally required to be submitted to the MOEE prior to any deposition of waste at the site. Base, final contours. Site facilities and services. Identify geologic and other site conditions not envisaged during the design phase. Describe mitigative measures taken. Changes to the site design will require amendment to the C of A prior to construction.	Describe the readiness of the site to receive waste as per approved plans. The Report is normally required to be submitted to the MOEE prior to any deposition of waste at the site. Base, final contours. Where part of design, information on all facilities for the control, handling or treatment of leachate or landfill gas. Site facilities and services. Identify geologic and other site conditions not envisaged during the design phase. Describe mitigative measures taken. Changes to the site design will require amendment to the C of A prior to construction.	Describe the readiness of the site to receive waste as per approved plans. The Report is normally required to be submitted to the MOEE prior to any deposition of waste at the site. Base, final contours. Where part of design, information on all facilities for the control, handling or treatment of leachate or landfill gas (including gas utilization). Site facilities and services. Identify geologic and other site conditions not envisaged during the design phase. Describe mitigative measures taken. Changes to the site design will require amendment to the C of A prior to construction.

** Refer to Subsection 4.14 for details

CELL COVER

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Frequency of cell cover application	Monthly. Cell cover may not be necessary during winter.	Daily basis, and weekly in certain cases based on site conditions.	Daily basis.
2. Daily soil cover thickness	150 mm	150 mm	150 mm
3. Intermediate soil cover thickness	300 mm	300 mm	300 mm
4. Use of material other than soil as daily or interim cover	Permitted on site specific basis but requires evaluation and MOEE approval of its suitability as cover material.	Permitted on site specific basis but requires evaluation and MOEE approval of its suitability as cover material.	Permitted on site specific basis but requires evaluation and MOEE approval of its suitability as cover material.

** Refer to Subsection 4.17 for details; and Regulation 347, Section 11

SUPERVISION

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Site personnel	Site Supervisor, Operator for all site work, note: positions may be shared by one or more persons	Site Supervisor, Site Technician, Foreman - Equip./Operation, Operators, alternating work on spreaders, scrapers and compactors, Weigh Scale Attendant (if scales are installed), Spotter at working face.	Site Supervisor, Site Engineer, Equipment Foreman, Working Face Foreman, Operators for spreaders and scrapers for daily cover, Operators for compactors, Weigh Scale Attendant and Clerks for billing, Spotters at working face.
2. Site personnel training	Basic Health and Safety and site inspection. WHMIS. Emergency response procedures and contingency plan implementation.	Basic Health and Safety, and site inspections, WHMIS, Regulation 347, operations of monitoring systems, control works and treatment plants. Emergency response procedures and contingency plan implementation.	Basic Health and Safety, and site inspections, WHMIS, Regulation 347, operations of monitoring systems, control works and treatment plants. Emergency response procedures and contingency plan implementation.
3. Site personnel facilities	Weather tight, heated, site office with a water supply and toilet facilities are desirable.	Site office, trailers with lockers, a pressurized water system, potable water and lunchroom and wash-up toilet facilities.	Site office, trailers with showers, lockers, pressurized water system, potable water, and wash-up toilet facilities, lunchroom, parking area.
4. Site supervision or inspection	Inspection of facilities and equipments for adherence to the approved Design & Operations Plan.	Supervision or inspection of staff, users, facilities and equipments for adherence to the approved Design & Operations Plan.	Supervision or inspection of staff, users, facilities and equipments for adherence to the approved Design & Operations Plan.

WHMIS - Workplace Hazardous Materials Information System, Regulation 644/88, under Occupational Health and Safety Act
** Refer to Subsection 4.18 for details; and Regulation 347, Section 11

HOUSEKEEPING

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Nulsance factors to be controlled	Noise, dust, litter, odour, vectors, vermin and scavenging bird and animals. Local municipal by-laws may impose more stringent requirements.	Noise, dust, litter, odour, vectors, vermin, scavenging birds and animals. Local municipal by-laws may impose more stringent requirements.	Noise, dust, litter, odour, vectors, vermin, scavenging birds and animals. Local municipal by-laws may impose more stringent requirements.
2. Housekeeping program	Spring and fall general clean-up with good site operational practices.	Site-specific program needed.	Site-specific program needed.
3. Control of specific landfill generated nuisance factors	Diligent inspection of the site with regular pick up of litter and use of litter fences down wind.	Good compaction and covering of waste is generally effective. Diligent inspection of the site and implementation of the housekeeping program.	Good compaction and covering of waste is generally effective. Diligent inspection of the site and implementation of the housekeeping program. Control measures will be more rigorous.
4. Vector and Vermin Control	Generally, contingency measures are adequate.	Routine pest control program may be necessary.	Routine pest control program is necessary.
5. Dealing with and resolving public complaints and concerns regarding nuisance	Good communication with local "landfill liaison committee". Expedite remedial measures and demonstrate willingness to co-operate.	Same as small site. Regularly employ professional for pest and disease control measures.	Same as medium site. Environmental officer or supervisory official of owner/operator to maintain contact with local "landfill liaison committee". Environmental updates, detailing housekeeping measures should be issued regularly.

** Refer to Subsection 4.20 for details

OPEN BURNING OF WASTE

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Open burning of waste	Open burning of waste at landfill sites is prohibited. Segregated, clean wood and brush, however may be burned at certain isolated sites subject to conditions.	Open burning of waste at landfill sites is prohibited.	Open burning of waste at landfill sites is prohibited.

** Refer to Subsection 4.21 for details

FINAL COVER

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Final cover	Soil cover of minimum 750 mm, with topsoil and vegetation, or approved alternate cover.	Soil cover of minimum 750 mm, with topsoil and vegetation, or approved alternate cover.	Soil cover of minimum 750 mm, with topsoil and vegetation, or approved alternate cover.
2. Slope	Minimum 5% and maximum 25%	Minimum 5% and maximum 25%	Minimum 5% and maximum 25%

** Refer to Subsection 4.22 for details; and Regulation 347, Section 11

MONITORING PROGRAM

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Components of a monitoring program	Monitoring of existing adjacent wells and/or watercourses is normally adequate.	(a) ground water, (b) surface water, (c) gas migration, (d) leachate, (e) liner (if installed).	(a) ground water, (b) surface water, (c) gas migration, (d) leachate, (e) liner (if installed).
2. Stages	(a) Baseline Monitoring Program, (b) Operational Monitoring Program, (c) Post Closure Monitoring Program.	(a) Baseline Monitoring Program, (b) Operational Monitoring Program, (c) Post Closure Monitoring Program.	(a) Baseline Monitoring Program, (b) Operational Monitoring Program, (c) Post Closure Monitoring Program.
3. Monitoring Plan	Where required, (a) listing of devices to be used, (b) water quality parameters to be measured, (c) sampling and analytical procedures, (d) evaluation procedures, (e) implementation schedule.	(a) listing of devices to be used, (b) water quality parameters to be measured, (c) sampling and analytical procedures, (d) evaluation procedures, (e) implementation schedule. (f) Site-specific concerns for impacts on adjacent land use.	(a) listing of devices to be used, (b) water quality parameters to be measured, (c) sampling and analytical procedures, (d) evaluation procedures, (e) implementation schedule. (f) site-specific concerns for impacts on adjacent land use.
5. Data Records	Where required, (a) surface water quality, and (b) ground water quality. (c) changes in ground water levels.	(a) surface water quality, (b) ground water quality, (c) gas migration, (d) contaminant migration rate, (e) comparison to predicted contaminant levels. (f) changes in ground water levels.	(a) surface water quality, (b) ground water quality, (c) gas migration (d) contaminant migration rates (e) comparison to predicted contaminant levels, and (f) changes in ground water levels.

** Refer to Subsections 3.6 and 4.23 for details; Regulation 347, Section 11

STATUS REPORT

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Submission frequency	Annual or bi-annual, unless contamination has been measured requiring more frequent reporting.	Annual, unless contamination has been measured requiring more frequent reporting.	Annual, unless contamination has been measured requiring more frequent reporting.
2. Contents	(a) environmental quality monitoring, (b) operations monitoring, (c) analysis of data, and (d) recommendations.	(a) environmental quality monitoring, (b) operations monitoring, and (c) analysis of data, and (d) recommendations.	(a) environmental quality monitoring, (b) operations monitoring, and (c) analysis of data, and (d) recommendations.

** Refer to Subsection 4.24 for details

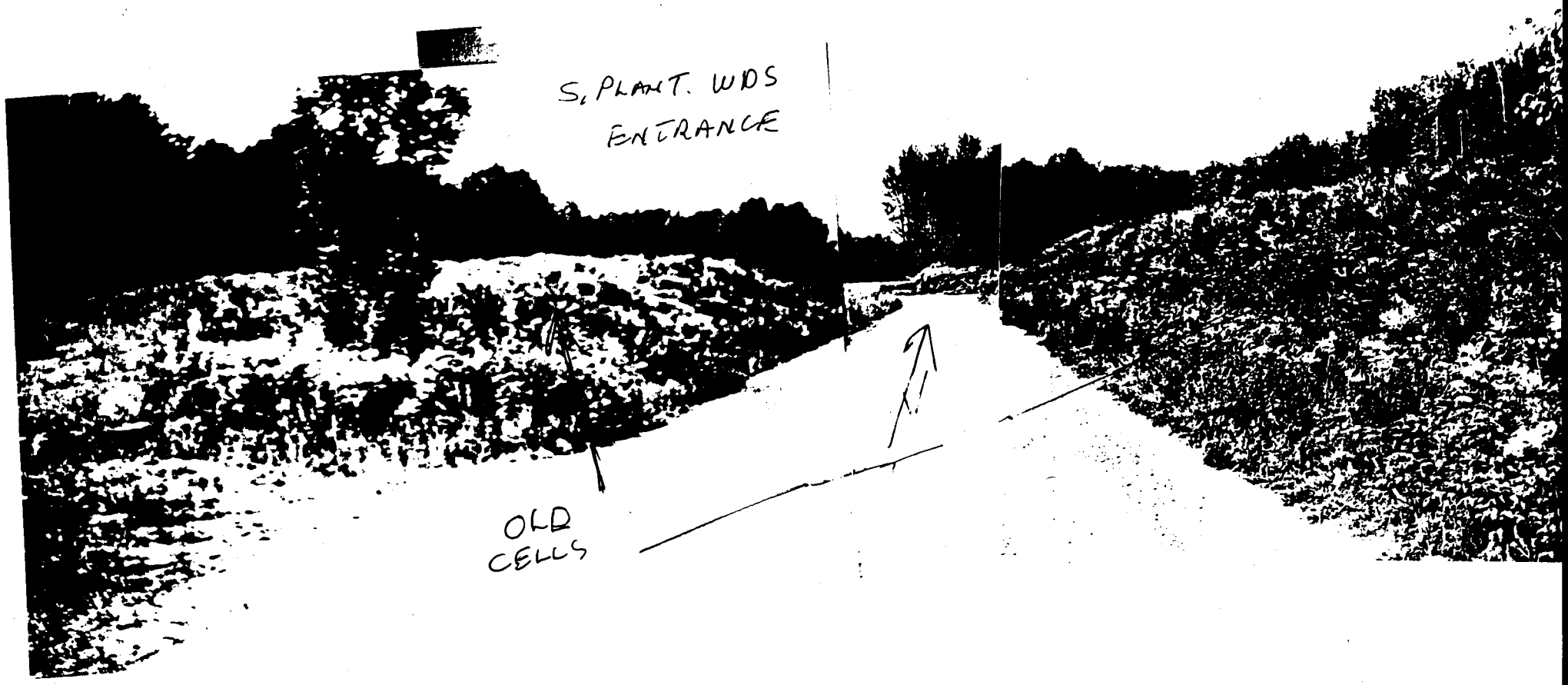
SITE CLOSURE

DESCRIPTION	SMALL LANDFILL	MEDIUM LANDFILL	LARGE LANDFILL
1. Closure Plan	Yes	Yes	Yes
2. Post-closure inspection and maintenance	Annually as a minimum.	Quarterly as a minimum.	Quarterly or more frequently if necessary.
3. Monitoring	Monitoring of existing adjacent wells and/or watercourses is normally adequate. Monitoring will generally be quarterly for at least the first two years and annually thereafter.	Site-specific monitoring program necessary. Monitoring will generally be quarterly for at least the first two years and semi-annually thereafter.	Site-specific monitoring program is necessary. Monitoring will generally be quarterly.
4. Control Works	Generally, continuation of existing control works, if any. eg, natural attenuation and buffer are normally sufficient.	Generally, continuation of existing control works, if any. eg, operation of leachate collection and treatment systems and gas control for as long as needed	Generally, continuation of existing control works, if any. eg, operation of leachate collection and treatment systems and gas control and energy utilization facilities for as long as needed

The Closure Plan should address all the pertinent and site-specific items listed in Subsection 5.1, regardless of site size. Larger, more sophisticated sites will generally require more detail than small, simple sites.

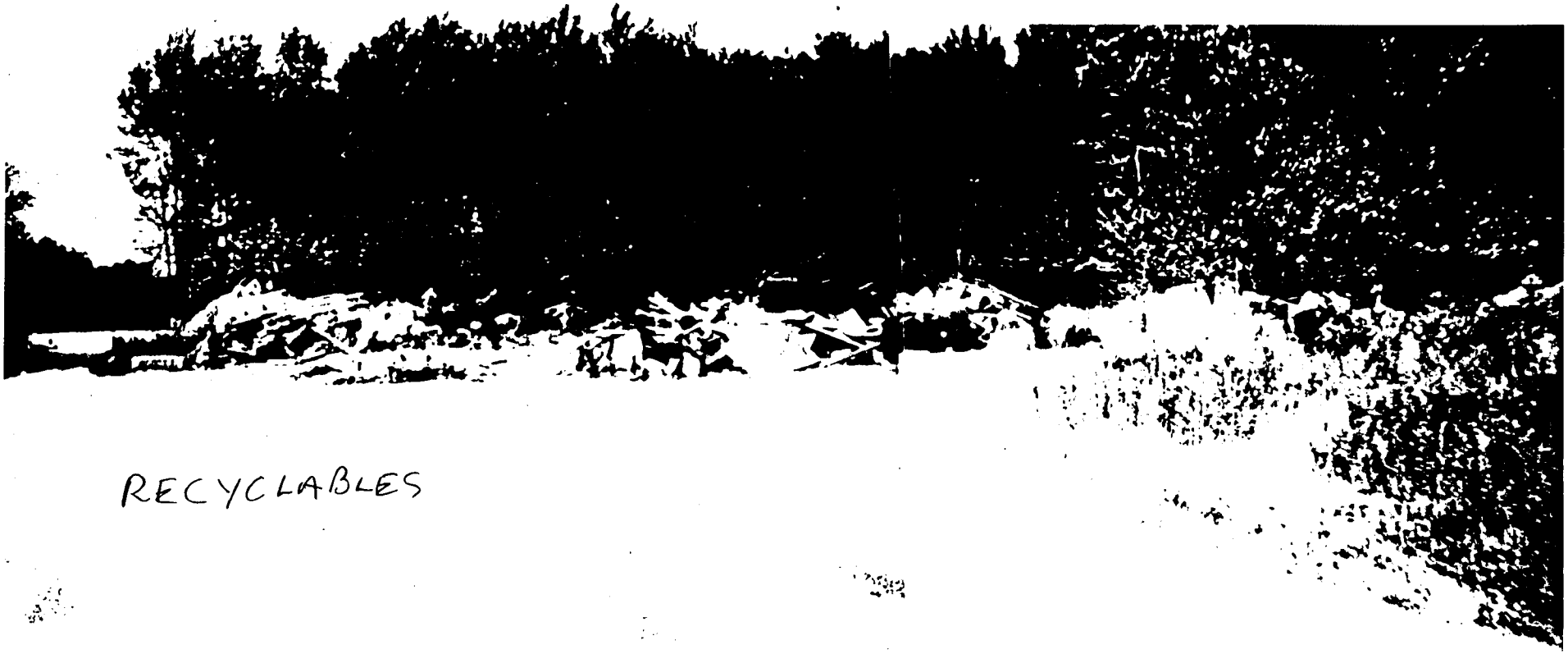
** Refer to Subsection 4.22 and Section 5

APPENDIX F PICTURE FILE OF THE LANDFILL SITE


S. PLANT. WDS
ENTRANCE
OLD
CELLS


ATTENDANTS
SHELTER


S. PLANT. WDS
ENTRANCE
GATE



RECYCLABLES


N
ACTIVE
AREA

ACTIVE
AREA


ATTENDANTS
SHELTER

APPENDIX G MOEE POLICY "BURNING AT LANDFILLING SITES"

POLICY TITLE BURNING AT LANDFILLING SITES | 14-08-01

Legislative Authority

the Environmental Protection Act.
Ontario Regulations 824 and 15, Section 6.

Statement of Principles

Regulation 824, with the proposed amendments, does not prohibit burning at landfilling sites. Burning may help decrease the availability of organics to birds, rodents, vectors and in some of the northern sites, bears. As a result, if burning can be conducted in a safe and environmentally acceptable manner, the Ministry has established the following guidelines.

OPERATIONAL REQUIREMENTS

1. Weather Conditions — Burning should be carried out only when prevailing weather conditions are suitable, i.e., no high winds, and the operation should be supervised.

2. Undesirable Emissions — Prior to burning, tires, plastics or wet materials which may cause smoke or other undesirable emissions must be segregated and not burned.

3. Permits — Permits as required by the Ministry of Natural Resources, Municipalities, or other agencies, must be obtained in order to ensure appropriate safety precautions and the prevention of fires.

Point of Contact

Director
Waste Management Branch

Effective Date

October 21, 1981

January 27, 1982

MOE 1428

4. Extinguishing Requirements

The area of burning on the landfilling site must be restricted in order to enable the operator to extinguish the fire immediately if necessary due to a change in weather or other conditions or if so ordered by Ministry staff. The operator must also provide proof of his ability (ie., on-site equipment or written agreement with local fire control agency) to extinguish the fire.

5. Access Control

Access to the landfilling site by the public and other unauthorized personnel must be controlled when burning is carried out.

6. Resolution Of Complaints

Complaints from local residents regarding smoke or odour emissions will have to be resolved by the operator. If this is not corrected satisfactorily, the operator will be ordered to stop burning.

7. Compliance With EPA and Reg.15

Site operators should comply with Regulation 15 and Section 14 of the Environmental Protection Act when burning.

8. Permission For Burning

Burning will not be permitted at new sites except in accordance with the operations program proposed by the operator at the time the Certificate of Approval is applied for. The program should deal with the above issues and any others that may be relevant to the site. A draft program is available from the Ministry of the Environment on which the operator may wish to base his proposal. Where problems are encountered with burning at existing sites, the operator may be requested either to stop burning or make a satisfactory proposal to control burning for incorporation in the Certificate of Approval for the site. If the operator does not comply voluntarily with such request, formal action to require him to stop burning may be taken under provisions of the Environmental Protection Act such as Section 6, 7, or 39. Appeals are available from any proposed action by the Ministry under these sections.

January 27, 1982

APPENDIX H FRENCH TRANSLATION OF TEXT

RAPPORT D'INSPECTION

DU LIEU D'ENFOUISSEMENT

DE PLANTAGENET-SUD (FOURNIER)

RAPPORT PRÉPARÉ PAR
LA SECTION DE LA LUTTE CONTRE LA POLLUTION,
DISTRICT DE CORNWALL (RÉGION DE L'EST),
MINISTÈRE DE L'ENVIRONNEMENT ET DE L'ÉNERGIE DE L'ONTARIO

Inspecteur : Larry Benoit
Inspection réalisée en septembre 1994 et janvier 1995
Rapport présenté le 28 mars 1995

RAPPORT D'INSPECTION
LIEU D'ENFOUISSEMENT DE PLANTAGENET-SUD (FOURNIER)

1 DONNÉES GÉNÉRALES

Le présent rapport a pour but d'établir si le canton de Plantagenet-Sud observe les lois et les règlements ontariens ainsi que les politiques, les directives et les certificats d'autorisation du ministère de l'Environnement et de l'Énergie en ce qui a trait à l'aménagement, à l'exploitation et à la désaffectation du lieu d'enfouissement du canton de Plantagenet-Sud.

1.1 Lieu inspecté :

Lieu d'enfouissement du canton de Plantagenet-Sud,
lot 3, concession 14, comtés unis de Prescott et Russell.

1.2 Certificat d'autorisation n° A471801, renouvelé la dernière fois le 25 avril 1980

1.3	Exploitant :	Corporation du canton de Plantagenet-Sud
1.4	Personnes-ressources :	M[me] C. Nicholas, commis-trésorière M. Simon Poirier, conseiller municipal M. Michel Delorme, préposé M. Larry Quesnel, ramassage des déchets
1.5	Date des inspections :	2 septembre 1994 et 27 janvier 1995
1.6	Opérateurs :	M. Michel Delorme, gardien M. Gerald Saureau, préposé aux machines

3.2 Superficie du lieu, y compris la zone tampon

D'après le certificat d'autorisation n° A471801, la décharge se trouve sur un terrain d'une superficie de 30,4 ha, lequel appartient au canton.

Le terrain a été arpenté, mais le plan n'indique pas l'emplacement de la décharge, de la zone tampon et des limites de la propriété.

3.3 Capacité

Capacité totale : Plus de 20 ans.

Capacité exploitée : Entre 2 et 3 hectares (d'après la superficie apparente).

Capacité de réserve : Plus de 20 hectares (d'après le plan d'exploitation daté de février 1991). Le certificat d'autorisation provisoire délivré en avril 1980 porte la superficie totale du lieu (y compris la zone tampon) à 30,4 hectares.

Volume de déchets mis en décharge (1993-1994) :

Déchets des secteurs I, C et I : 20 % x 610 = 120 m^3/an

Ordures ménagères : volume total évalué à 490 m^3/an

Autres : les déchets de bois sont séparés des autres déchets et brûlés entre 10 et 20 fois par année ; leur volume représente environ 100 m^3/an.

Source des données (ex. : balances, manifestes, études, etc.) :

L'exploitant ne possède pas de balance et ne tient pas de registres sur les chargements de déchets déposés au lieu d'enfouissement. Les volumes cités ont été établis approximativement d'après la quantité de déchets déposés au lieu d'enfouissement chaque semaine, soit les chargements de deux camions-bennes, ce qui correspond à environ sept tonnes.

4 EXPLOITATION DU LIEU D'ENFOUISSEMENT

4.1 Plan d'exploitation

L'exploitant a-t-il élaboré un plan d'exploitation et un plan de désaffectation du lieu d'enfouissement ?

Le canton a fait faire un plan d'exploitation en 1991, mais ne l'a pas encore mis en oeuvre au complet.

4.2 Programme de surveillance

L'exploitant a-t-il mis au point un programme de surveillance des eaux souterraines, des eaux de surface et des gaz de décharge ?

Le canton n'a pas de plan officiel à cet égard.

4.3 Supervision et sécurité

L'exploitant supervise-t-il le lieu d'enfouissement ?

Une barrière verrouillable bloque l'entrée du lieu d'enfouissement lorsque le gardien n'est pas en service.

4.4 Méthodes d'exploitation (compactage et revêtement y compris)

La mise en décharge semble être effectuée selon la méthode dite « en surface » (*area method*), la méthode recommandée dans le plan d'exploitation.

Il faudrait que la tranchée soit recouverte après chaque progression de 6 à 8 mètres vers le nord ou au moins une fois par mois durant l'été. Le recouvrement devrait aussi être fait tous les mois durant l'hiver, à moins que les conditions météorologiques rendent cette pratique difficile. Il faudrait aussi recouvrir les autres endroits à l'aide d'un matériau peu perméable de manière à minimiser l'infiltration d'eau et les envolées de détritus, et à attirer le moins possible d'insectes, de rats, d'oiseaux, etc.

4.5 Écriteaux

a) Écriteaux devant l'entrée :

L'écriteau qui se trouve à l'entrée mentionne que le lieu d'enfouissement est ouvert au public les samedis, mais ne donne pas le numéro de téléphone de l'exploitant ni les types de déchets acceptés au lieu d'enfouissement, les personnes qui sont autorisées à utiliser le lieu d'enfouissement et le numéro de téléphone à composer en cas d'urgence.

b) Écriteaux à l'intérieur des installations :

Des écriteaux indiquent clairement où il faut déposer les ordures ménagères. Par contre, des arbustes et des buissons voilent l'écriteau qui se trouve près de l'aire d'entreposage des déchets de bois, des câbles, de la ferraille et des appareils électroménagers.

4.6 Routes

a) Routes locales :

Le chemin de concession est un chemin pavé à double sens. Il est en bon état et peut être utilisé à longueur d'année.

b) Chemins à l'intérieur des installations :

Ce sont des chemins à double sens faits de gravier et de sable. Ils sont en bon état.

4.7 Conditions particulières (ex. : brûlage en plein air)

Aucune condition particulière n'a été imposée pour le lieu d'enfouissement. Il est mentionné dans le plan d'exploitation que les déchets de bois peuvent être brûlés, mais il est interdit de brûler tout autre matériau que du bois propre et des broussailles. Le plan d'exploitation devrait préciser les conditions qui doivent prévaloir lorsque des déchets de bois sont brûlés. (Voir à l'annexe G, à titre de référence, la politique du Ministère n° 14-08-01 intitulée *Brûlage aux lieux d'enfouissement*).

4.8 Droits d'enfouissement

a) Méthode :

Le canton n'exige pas de droits d'enfouissement.

b) Remarques :

Les taxes municipales paient pour le ramassage des déchets en bordure des routes et l'exploitation du lieu d'enfouissement.

4.9 Séparation des déchets

Ferraille et appareils électroménagers

Quantité : Entre 10 et 20 tonnes, récupérées entre cinq et six fois par année par l'entreprise *Charlebois Scrap*, Grenville (Québec).

Destination : Grenville-Lachute (Québec)

Broussailles

Quantité : Varie d'une année à l'autre

Élimination : Les déchets de bois sont brûlés sur place

4.10 Propreté du lieu

a) À l'intérieur des installations :

Le jour de l'inspection, le lieu d'enfouissement était propre.

b) Terrains adjacents :

Le jour de l'inspection, les terrains adjacents étaient exempts de détritus.

c) Voies de transport :

Le jour de l'inspection, les routes d'accès au lieu d'enfouissement étaient exemptes de détritus.

5 PLANS D'INTERVENTION D'URGENCE

Des plans d'intervention d'urgence ont-ils été élaborés ?

Le plan d'exploitation renferme quelques directives en ce qui a trait à l'élimination des déchets en cas d'urgence et à la lutte contre les incendies. Le canton ne possède pas de plan d'intervention détaillé en ce qui concerne l'exploitation du lieu d'enfouissement.

Remarques :

Il y aurait lieu d'élaborer un plan d'intervention d'urgence énonçant les mesures à prendre en cas d'incendie, de défaillance du matériel, de plaintes relatives à des odeurs nauséabondes, d'infestation de rongeurs, de migration du lixiviat, de fuite de méthane et de tout autre problème entraînant une dérogation aux règles d'exploitation et de désaffectation d'un lieu d'enfouissement et aux normes du ministère de l'Environnement et de l'Énergie ou de toute autre compétence. Le plan devrait aussi stipuler les mesures requises pour assurer l'observation des conditions énoncées dans le certificat d'autorisation.

Le plan devrait être mis à jour de temps à autre et être affiché à l'intérieur des installations et du poste du gardien pour que le personnel puisse le consulter au besoin.

6 FORMATION DU PERSONNEL ET ATTRIBUTION DES TÂCHES

6.1 Le personnel a-t-il pris connaissance :

a) du plan d'exploitation : **non**

b) du Règlement 347 de l'Ontario : **non**

c) des cours de formation : **non**

d) des prescriptions du certificat d'autorisation :

Le personnel du canton n'a reçu aucune véritable formation en ce qui a trait à l'exploitation du lieu d'enfouissement.

7 TENUE DES REGISTRES ET PRÉSENTATION DES DONNÉES

7.1 L'exploitant a-t-il mis au point une façon d'évaluer s'il respecte ou non les règles et les normes en vigueur ?

Le plan d'exploitation renferme le formulaire nécessaire à la production du rapport annuel, mais il semblerait que le canton n'ait jamais envoyé de rapport au Ministère.

7.2 Existe-t-il une marche à suivre en ce qui concerne la production des rapports devant être remis au ministère de l'Environnement et de l'Énergie ?

Le canton ne produit pas de rapport annuel (exploitation et surveillance). Il devrait en produire un annuellement et le remettre au bureau de district du Ministère qui se trouve à Cornwall.

8 DISPOSITIONS RÉGLEMENTAIRES ET LOIS ONTARIENNES

8.1 *CERTIFICAT D'AUTORISATION PROVISOIRE*

Date d'expiration : non précisée

L'exploitant respecte-t-il les conditions du certificat d'autorisation ?

Le certificat d'autorisation provisoire n° A471801 ne stipule qu'une condition : « Aucun déchet ne pourra être mis en décharge au lieu d'enfouissement tant que le canton n'aura pas fait viser le certificat d'autorisation dans un bureau d'enregistrement immobilier. »

Le certificat d'autorisation est visé « acte instrumentaire n° 44631 ».

Il y aurait lieu de modifier le certificat d'autorisation pour qu'il soit représentatif des modes d'exploitation actuels du lieu d'enfouissement. Le lieu d'enfouissement est bien entretenu, mais il est exploité au jour le jour.

Le canton ne possède pas de plan d'exploitation, d'aménagement et de désaffectation du lieu, ni de programme de surveillance des eaux de surface et souterraines. La décharge semble empiéter sur la zone tampon de la partie est du lieu d'enfouissement. Le canton aurait besoin d'élaborer un programme de surveillance pour bien définir les caractéristiques des eaux de surface et des eaux souterraines.

Il y aurait lieu, pour ces raisons, de modifier le certificat d'autorisation de manière à ce qu'il soit représentatif des modes d'exploitation actuels du lieu d'enfouissement, conformément au Règlement 347 de l'Ontario. Le certificat modifié devrait comprendre tout au moins les conditions suivantes :

- Le canton devrait rédiger un plan d'aménagement et d'exploitation.

- Le canton devrait demander à un ingénieur-conseil de rédiger un rapport sur l'état actuel du lieu d'enfouissement, y compris les répercussions de l'enfouissement sur les eaux souterraines et de surface et sur la formation des gaz de décharge. Le rapport devrait comprendre les grandes lignes d'un programme de surveillance ainsi que les résultats d'une étude sur l'utilisation raisonnable des eaux souterraines.

- Le canton devrait remettre au Ministère un rapport annuel ou semestriel dans lequel il rendra compte des modes d'exploitation utilisés pendant la période du rapport, ainsi que toute dérogation au plan d'exploitation, d'aménagement et de désaffectation et tout changement qu'il voudrait apporter au lieu d'enfouissement.

- Le canton devrait élaborer un plan d'intervention d'urgence et voir à ce qu'il soit mis à la disposition des employés municipaux.

- Les limites du lieu d'enfouissement ainsi que le volume de déchets mis en décharge devraient être clairement indiqués sur les documents annexés au certificat d'autorisation.

8.2 *RÈGLEMENT 347 DE L'ONTARIO, LOI SUR LA PROTECTION DE L'ENVIRONNEMENT*

L'exploitant respecte-t-il les dispositions du Règlement 347 de l'Ontario et de la *Loi sur la protection de l'environnement* ?

La partie 7 de l'article 11 du Règlement 347 se lit comme suit (traduction libre) :

Si le lieu d'enfouissement risque de polluer une source d'eau, le propriétaire du lieu doit prélever des échantillons d'eau et les faire analyser pour voir s'ils ont été contaminés par du lixiviat. S'il y a lieu, le propriétaire doit prendre des précautions pour protéger les eaux extérieures des infiltrations et du ruissellement (écrans d'étanchéité, captage et traitement du lixiviat, etc.).

Il est dit dans le plan d'exploitation élaboré en 1991 que le canton doit effectuer une surveillance annuelle des eaux de surface et des eaux souterraines. Le canton n'a pourtant pas encore mis sur pied un tel programme de surveillance.

9 POLITIQUES ET LIGNES DIRECTRICES DU MINISTÈRE

L'exploitant respecte-t-il les politiques et directives suivantes ?

9.1 *Politique 14-06* *Enregistrement sur le titre de propriété des certificats d'autorisation de lieux d'élimination des déchets*

Le canton a respecté cette politique. Le certificat d'autorisation est visé « acte instrumentaire » n° 44631.

9.2 *Politique 15-08* *Intégration de la notion d'utilisation raisonnable dans la gestion des eaux souterraines par le ministère de l'Environnement et de l'Énergie*

Le canton n'a pas réalisé d'étude sur l'utilisation raisonnable des eaux souterraines qui coulent à proximité du lieu d'enfouissement.

9.3 Guide d'exploitation des lieux d'enfouissement recevant des ordures ménagères (novembre 1993)

Le guide couvre la plupart des questions se rapportant aux lieux d'enfouissement municipaux. En résumé, le canton de Plantagenet-Sud ne respecte pas les prescriptions suivantes :

a) Plan d'exploitation :

Le canton a élaboré un plan d'exploitation en 1991, mais ne le respecte pas.

b) Zone tampon :

Il n'existe pas de zone tampon proprement dite aux limites nord et est du lieu d'enfouissement.

c) Plan d'intervention d'urgence :

Le canton ne possède pas de plan d'intervention détaillé.

d) Programme de surveillance :

Le canton n'a pas mis sur pied un programme de surveillance. Il devrait réaliser une étude approfondie pour déterminer les répercussions du lieu d'enfouissement sur les eaux de surface et les eaux souterraines.

e) Production de rapports :

Le canton devrait préparer un rapport annuel ou semestriel.

f) Écriteaux :

L'écriteau qui se trouve à l'entrée ne donne pas le numéro de téléphone de l'exploitant ni les types de déchets acceptés au lieu d'enfouissement, les personnes qui sont autorisées à utiliser le lieu d'enfouissement et le numéro de téléphone à composer en cas d'urgence.

Pour plus de précisions sur les normes d'exploitation, voir (annexe D) le document intitulé *SUMMARY OF OPERATIONAL PRACTICES AT LANDFILL SITES.*

10 LACUNES

DISPOSITIONS RÉGLEMENTAIRES

1. *Certificat d'autorisation provisoire :*

   Le canton observe les dispositions du certificat d'autorisation provisoire en vigueur. Le certificat devrait toutefois être modifié de manière à inclure, comme condition, la mise en oeuvre d'un plan d'exploitation, d'aménagement et de désaffectation, d'un plan d'intervention d'urgence et d'un programme de surveillance.

2. *Règlement 347, partie 7 de l'article 11 :*

   Rien n'indique que le canton ne respecte pas la partie 7 de l'article 11 du Règlement 347 de l'Ontario. Le canton devrait toutefois mettre en oeuvre le programme de surveillance mentionné dans le plan d'exploitation élaboré en 1991.

POLITIQUES ET DIRECTIVES DU MINISTÈRE DE L'ENVIRONNEMENT ET DE L'ÉNERGIE

3. *Politique 15-08 : Intégration de la notion d'utilisation raisonnable dans la gestion des eaux souterraines par le ministère de l'Environnement et de l'Énergie*

   Le canton n'a pas réalisé d'étude sur l'utilisation raisonnable des eaux souterraines qui coulent à proximité du lieu d'enfouissement. En remédiant aux lacunes citées plus haut, le canton répondrait aux exigences du ministère de l'Environnement et de l'Énergie.

4. *Guide d'exploitation des lieux d'enfouissement recevant des ordures ménagères* (novembre 1993)

   Le Ministère est conscient que les municipalités ne connaissent pas toutes ce document. Quoi qu'il en soit, le canton n'en observe pas les lignes directrices.

5. *Politique 14-08-01 : Brûlage aux lieux d'enfouissement*

   Le Ministère n'a reçu aucune plainte au sujet du brûlage des déchets de bois et de la broussaille. La marche à suivre n'est toutefois pas très claire.

11 RECOMMANDATIONS

1. Le canton observe les dispositions du certificat d'autorisation provisoire. Le certificat devrait cependant être modifié de manière à inclure, comme condition, la mise en oeuvre d'un plan d'exploitation, d'aménagement et de désaffectation, d'un plan d'intervention d'urgence, d'un programme de surveillance des eaux souterraines et de surface, ainsi que des directives quant au brûlage des déchets de bois.

2. Le canton devrait songer à mettre sur pied un comité de gestion des déchets.

3. Le plan d'aménagement et d'exploitation renferme le formulaire nécessaire à la production du rapport annuel, mais le canton n'a jamais envoyé de rapport au Ministère.

4. Le canton devrait voir à ce que son personnel prenne connaissance du plan d'exploitation, d'aménagement et de désaffectation, ainsi que des dispositions du Règlement 347 (notamment l'article 11), du certificat d'autorisation et du Guide d'exploitation publié par le Ministère (voir l'annexe D). Il devrait aussi offrir un cours de formation à son personnel.

5. L'écriteau qui se trouve à l'entrée devrait donner les renseignements suivants : le numéro de téléphone de l'exploitant, les types de déchets acceptés au lieu d'enfouissement, les personnes qui sont autorisées à utiliser le lieu d'enfouissement et le numéro de téléphone à composer en cas d'urgence.

6. Le canton devrait obtenir un exemplaire du *Guide d'exploitation des lieux d'enfouissement recevant des ordures ménagères* (novembre 1993) et mettre en pratique les directives figurant à l'annexe E du présent rapport.

Présentation du rapport : 28 mars 1995

Le présent rapport fait état des données obtenues lors de l'inspection réglementaire effectuée le 2 septembre 1994 et le 27 janvier 1995. Si des données ont été omises, il ne faut pas nécessairement en déduire que l'exploitant respecte ou ne respecte pas les lois et règlements en vigueur.

Inspecteur provincial : **Larry L. Benoit, agent principal de l'environnement**

Signature : _____