



## LICENCE

issued under Section 20 of the Environment Protection Act 1970

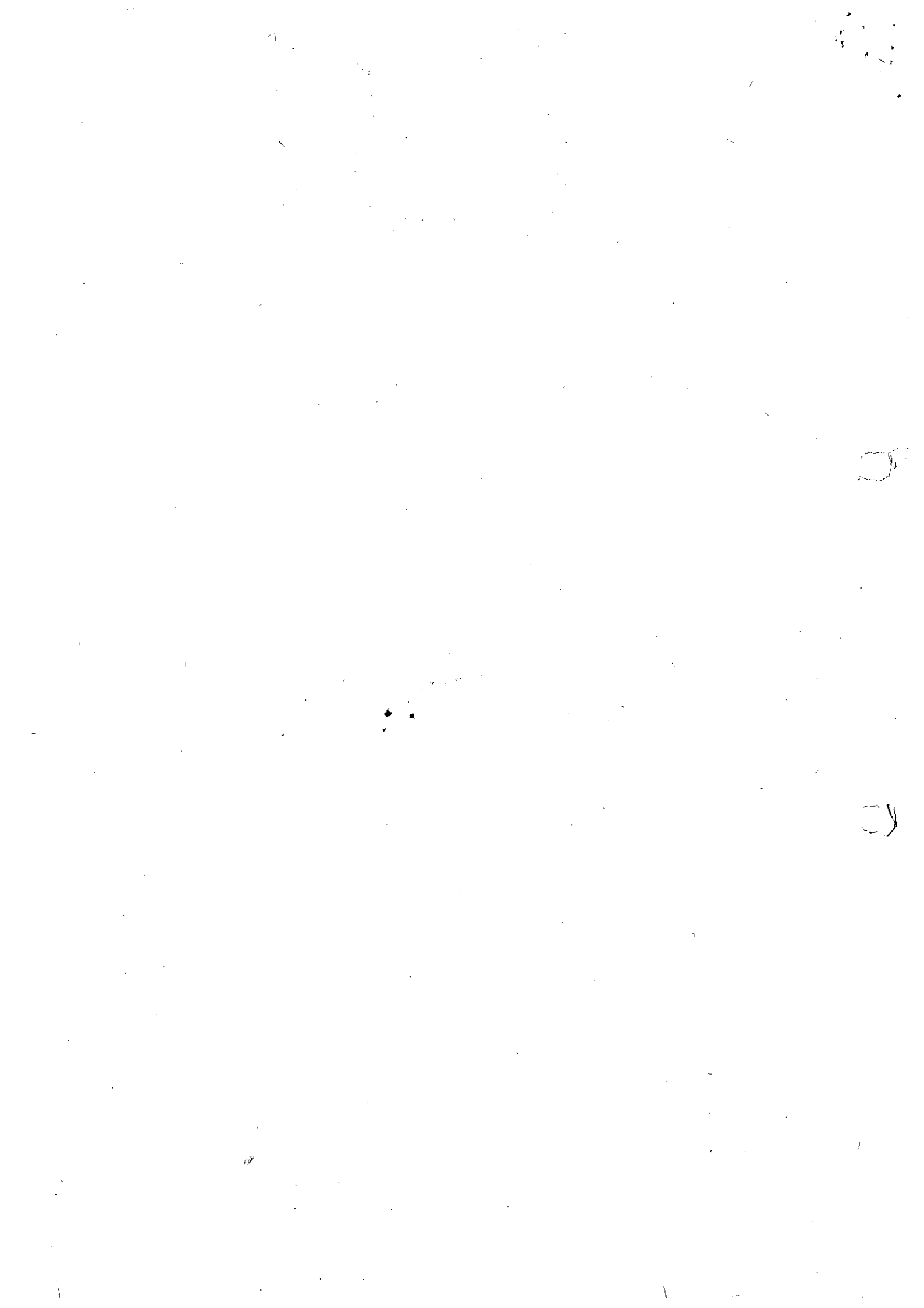
***This licence allows the licence holder to deposit waste to land at the premises subject to the attached conditions.***

**LICENCE HOLDER:** EAST GIPPSLAND SHIRE COUNCIL  
**REGISTERED ADDRESS:** 273 MAIN STREET BAIRNSDALE VIC 3875  
**PREMISES ADDRESS:** JOHNSTON ROAD BAIRNSDALE SOUTH  
**LICENCE NUMBER:** LS52327  
**DATE OF ISSUE:** 15 JULY 2003

.....  
MICHAEL ROBERT TONTA

ENVIRONMENT PROTECTION AUTHORITY

Page 1 of 13



**Plant Activities**

This licence applies to a premises where municipal waste is deposited to land.

**Licence Objectives**

The licence holder shall adopt the following objectives for the protection of the environment:

- meet environmental quality requirements for all segments of the environment. This includes meeting the general provisions of the *Environment Protection Act (1970)*, State environment protection policies, and Industrial waste management policies. In particular,
  - ◆ *State environment protection policy (Waters of Victoria);*
  - ◆ *State environment protection policy (Groundwaters of Victoria);*
  - ◆ *State environment protection policy (Air Quality Management);*
  - ◆ *State environment protection policy (Siting and Management of Landfills receiving Municipal Wastes)*
- operate in accordance with good environmental practice at all times, including the provisions of EPA Publication No 788 *Siting, Design, Operation and Rehabilitation of Landfills*; and
- take opportunities to minimise waste and continuously improve environmental performance.

**Licence Structure**

The licence consists of the following parts.

*1. Waste Management*

- specifies which wastes may be deposited and the general requirements under which this may occur.

*2. Environment Improvement Plan and Operational Controls*

- may require an Environment Improvement Plan to be produced and regularly reviewed; and
- may include operating requirements for good waste management to ensure protection of the environment under both normal and upset conditions.

*3. Monitoring and Reporting*

- specifies the monitoring requirements and the arrangements for submission of reports to EPA.

*4. Plan of Premises*

- plan of the premises covered by this licence.

**DEFINITIONS**

For the purposes of this licence the following interpretations apply:

"EPA" means the Environment Protection Authority

"Municipal waste" includes putrescible wastes and solid inert wastes from manufacturing, commercial, processing and services industries and waste generated within residential dwellings, but does not include liquid wastes, night-soil or grease trap wastes.



## 1. WASTE MANAGEMENT

### Waste Discharge Components

- 1.1. Only the following wastes may be deposited at the premises:
- municipal waste, both putrescible and solid inert fractions / only solid inert fractions; and
  - pneumatic automotive tyres shredded into pieces less than 250 millimetres in all dimensions.

### Waste Discharge Location

- 1.2. Waste may only be deposited in that area described as the tipping area on the Plan of Premises.
- 1.3. Wastes, including litter, must not be:
- deposited or allowed to accumulate in waters or leachate dams;
  - discharged beyond the boundaries of the premises; or
  - burned.
- 1.4. Leachate, or any water containing leachate, must not be discharged to the environment beyond the boundary of the premises.
- 1.5. Seepage of waste to groundwater at the premises must not cause any groundwater quality objective, as specified in State environment protection policy (*Groundwaters of Victoria*), to be exceeded.

### Odours

- 1.6. Odours offensive to the senses of human beings must not be discharged beyond the boundaries of the premises.

### Future Landfill Cells and Areas

- 1.7. At least 3 months prior to the commencement of construction of a new landfill cell, the licence holder must submit to EPA for approval, plans and specifications for the design and construction of the cell liner and leachate<sup>4</sup> collection system.
- 1.8. Prior to the commencement of construction of any landfill cell, the licence holder must engage an environmental auditor appointed under the Environment Protection Act 1970 to prepare an environmental audit report.
- 1.9. The environmental audit report referred to in Condition 1.8 must confirm that the cell has been constructed in accordance with the Authority approved plans and specifications as required by Condition 1.7 and be submitted to the Authority.
- 1.10. In preparing the environmental audit report referred to in Condition 1.8 above, the environmental auditor must:
- review the approved plans and specifications including the Construction Quality Assurance Plan;
  - review all reports, measurements and other data provided in the context of the Construction Quality Assurance Plan;
  - review all other records and/ or management systems relevant to the construction of the landfill cell;

<sup>4</sup> "Leachate" means water that has become contaminated by being in contact with landfill wastes

- d. collect and review all other data or information which the relevant environmental auditor considers relevant;
- e. undertake one or more inspections of the site; and
- f. assess the risk of any possible harm or detriment to the groundwater environment caused by the manner in which the cell has been constructed.

**Financial Assurance**

- 1.11. By 1 September 2003 the licence holder must submit a financial assurance in accordance with section 67B of the Environment Protection Act to EPA and the financial assurance proposal accepted by the Authority.

A handwritten signature in black ink, appearing to be 'M.A.', located in the bottom right corner of the page.

## 2. ENVIRONMENT IMPROVEMENT PLAN AND OPERATIONAL CONTROLS

### Environment Improvement Plan

- 2.1. By 1 October 2003 the licence holder must submit a revised Environment Improvement Plan (EIP) to EPA for approval.
- 2.2. The licence holder must operate the landfill in accordance with the latest version of the Environment Improvement Plan approved by EPA.

### Tipping and Cover

- 2.3. The tipping area must be supervised at all times when the landfill is open for the reception of wastes.
- 2.4. All wastes must be deposited and compacted in layers not exceeding a vertical height of two metres.
- 2.5. Putrescible wastes must be immediately covered by earth or other EPA approved material after deposition.
- 2.6. At the end of each day's operation all waste must be covered by a layer of earth or other EPA approved material.
- 2.7. By the end of each week, all wastes must be covered by a layer of earth or other EPA approved material not less than 300 millimetres in thickness.
- 2.8. Adequate cover material for at least one month's operation must be readily available on the premises.

### Leachate and Stormwater Management

- 2.9. All surface drainage must be diverted from those portions of the premises which are or have been used for waste deposit.
- 2.10. Leachate must be extracted from the landfill such that the depth of leachate above the lowest point of the drainage layer does not exceed 300 millimetres.
- 2.11. Leachate or water must not be permitted to pond on the surface of the landfill.
- 2.12. All leachate and contaminated stormwater run-off must be collected and directed to the leachate treatment and disposal pond system.
- 2.13. Leachate and contaminated stormwater must only be discharged from the leachate pond system in accordance with the following:
  - a) to irrigation in accordance with the conditions of this licence; or
  - b) by tanker to an approved sewerage authority works in accordance with the conditions of this licence; or
  - c) for emergency use on the premises to suppress a fire on the premises.

### Irrigation of Leachate within the Premises

- 2.14. Leachate may only be irrigated over that portion of the premises identified as a leachate irrigation area as shown on the attached plan of premises.
- 2.15. Irrigation must only take place between the hours of 8:00 am and 5:00 pm, except with the approval of EPA.

- 2.16. Irrigation must not commence or continue during weather conditions which may reasonably be expected to cause spray drift or run-off beyond the boundaries of the premises.
- 2.17. Irrigation must not cause run-off, ponding or seepage to surface downslope.
- 2.18. The supply of wastewater to the emitters must be manually controlled by an operator who must remain on the premises during the whole of the irrigation cycle.
- 2.19. The licence holder must inform EPA of all modifications or additions to the irrigation system, associated works or equipment.

#### **Disposal of Leachate from the Premises**

- 2.20. Liquid waste in the leachate treatment and disposal system must be tankered to an approved disposal site whenever the level in pond reaches a level where the freeboard is reduced below 500 mm and irrigation is not permitted by this licence.
- 2.21. No discharge of leachate to a sewer shall occur unless approval to discharge to a sewerage system has been obtained from the appropriate authority.
- 2.22. All leachate transported from the premises must be in accordance with the Environment Protection (Prescribed Waste) Regulations 1998.

#### **Abutting Roads**

- 2.23. The licence holder must ensure that vehicles exiting the premises do not deposit waste, sand, soil, clay or stones on the abutting roads.
- 2.24. The licence holder must ensure that all vehicles use the wheel cleaning facility when vehicles are likely to take mud off-site.

#### **Site Screening**

- 2.25. A screen of suitable trees and shrubs must be maintained around the northern, western and southern perimeters of the Stage 1 tipping areas, as shown on the plan of premises.
- 2.26. Tree screening plantations must be maintained and extended as necessary during the life of the landfill by the replacement or infill planting such that the screening remains effective.

#### **Fires**

- 2.27. A water supply and a means of distribution must be readily available to enable the extinguishment of a fire at any part of the premises.
- 2.28. In the event of a fire breaking out, the licence holder must take immediate action to extinguish the fire.

#### **Signs and Fences**

- 2.29. Signs must be prominently displayed at the premises indicating:
  - a) EPA waste discharge licence number;
  - b) the hours of opening of the premises;
  - c) the types of wastes which may be deposited;

- d) that fires must not be lit on the premises;
- e) the types of wastes which may be recycled;
- f) where wastes may be deposited; and
- g) emergency contact phone numbers.

2.30. All fences and gates surrounding the premises must be:

- a) at least 1.8 metres in height;
- b) maintained to prevent uncontrolled access by livestock or people; and
- c) kept clean and litter-free.

### **Landfill Gas Management**

2.31. Landfill gas must be managed in accordance with the latest version of the landfill gas management plan for the premises approved by EPA.

722?

### **Progressive Premises Rehabilitation**

2.32. The landfill must be progressively rehabilitated in accordance with the latest version of the premises rehabilitation plan for the premises approved by EPA.

### **Environment Management Review Committee**

2.33. The licence holder must establish and facilitate the continued operation of an Environment Management Review Committee to review the development and management of the landfill, the implementation of the EIP and report to EPA.

2.34. The Environment Management Review Committee shall be chaired by a representative of the licence holder, and invite representative(s) of stakeholders with an interest in the management and operation of the facility:

2.35. The objectives and function of the Environment Management Review Committee must be:

- a) to receive reports on the progress and development of the landfill;
- b) to review the development and operation of the landfill;
- c) to identify and address local concerns;
- d) to act as a forum for the exchange of information between the operator and the community on issues relating to refuse collection and disposal;
- e) to coordinate information to the public on litter, recycling and waste management issues;
- f) to review the groundwater monitoring data; and
- g) to report to EPA.



### 3. MONITORING AND REPORTING

#### Groundwater Monitoring Program

- 3.1. The licence holder must maintain five groundwater monitoring bores ('the bores') at the locations shown on the attached plan of premises.
- 3.2. The bores must be reasonably accessible at all times to any Authorised Officer of EPA or any Authorised Officer under the Water Act 1989.
- 3.3. Standing water level in the bores must be measured and recorded on each occasion that samples are obtained in accordance with condition number 3.4. This measurement must be:
- a) carried out prior to any disturbance by sampling;
  - b) measured relative to ground level; and
  - c) referenced to Australian Height Datum.
- 3.4. Samples of water must be taken from the bores at least once every 6 months, and analysed or tested for:
- |                                 |                           |
|---------------------------------|---------------------------|
| a) electrical conductivity      | j) sulfate                |
| b) pH                           | k) sodium                 |
| c) redox potential              | l) potassium              |
| d) total dissolved solids       | m) calcium                |
| e) total kjeldahl nitrogen      | n) magnesium              |
| f) ammonia nitrogen             | o) total iron             |
| g) nitrate nitrogen             | p) manganese              |
| h) bicarbonate (as bicarbonate) | q) total organic carbon   |
| i) chloride                     | r) chemical oxygen demand |
- 3.5. The licence holder must forward to the Project Manager - Groundwater, Department of Natural Resources and Environment, Groundwater Database, PO Box 500, East Melbourne 3002 a copy of all groundwater analyses, measurements and observations within 28 days of the completion of analyses for each sampling occasion referred to in condition 3.4.

#### Leachate Monitoring Program

- 3.6. Standing leachate levels in the leachate collection sumps must be measured and reported on every occasion that samples are obtained in accordance with condition 3.7 such that it is:
- a) carried out prior to any disturbance by sampling;
  - b) measured relative to ground level;
  - c) referenced to Australian Height Datum; and
  - d) reported as metres above the lowest point of the top of the landfill liner.



3.7. The licence holder must take a sample from the leachate collection sump on at least one occasion in every period of 6 months and have the sample analysed or tested for:

- |                                 |   |
|---------------------------------|---|
| a) electrical conductivity      | i) - sodium                                 |
| b) pH                           | j) potassium                                |
| c) redox potential              | k) calcium                                  |
| d) total dissolved solids       | l) magnesium                                |
| e) ammonia nitrogen             | m) total iron                               |
| f) bicarbonate (as bicarbonate) | n) manganese                                |
| g) chloride                     | o) total organic carbon                     |
| h) sulfate                      | p) volatile fatty acids (C <sub>2-6</sub> ) |

### Sampling and Analysis Procedure

3.8. The licence holder must ensure that all samples required by conditions 3.4 and 3.7 are:

- a) collected, preserved and analysed as specified in the most recent edition of EPA Publication number 441, "A Guide to the Sampling and Analysis of Waters, Wastewater, Soils and Wastes", or by other methods approved by EPA;
- b) sampled, in the case of groundwater, consistent with the most recent edition of EPA Publication number 669, "Groundwater Sampling Guidelines" or other methods approved by EPA;
- c) submitted to an analytical laboratory accredited by the National Association of Testing Authorities (NATA) to undertake the analyses specified in this licence unless prior agreement to do otherwise has been obtained from EPA; and
- d) the results of the analysis are submitted to EPA in a NATA endorsed test report unless prior agreement to do otherwise has been obtained from EPA.

### Greenhouse Gas Action Plan

3.9. By 30 November 2003, the licence holder must submit a Greenhouse Gas Action Plan to EPA for written approval in accordance with EPA Protocol for Environmental Management (PEM), *Greenhouse Gas Emissions and Energy Efficiency in Industry*.

824

### National Pollutant Inventory

3.10. By the 30 September each year, the licence holder must submit a National Pollutant Inventory report using the NPI Emission Estimation Technique Manual, *Municipal Solid Inert Landfills*, for the licence holder's previous year's NPI Reporting Period to EPA.

### Premises Rehabilitation Plan

3.11. On or before 1 October 2003, the licence holder must submit a revised premises rehabilitation plan to EPA for approval.

- 3.12. The premises rehabilitation plan required by condition 3.11 must include consideration of, and designs for, the following provisions where applicable:
- a) proposed timetable for the progressive rehabilitation of the current and previous tipping areas;
  - b) anticipated timetable for the closure and rehabilitation of the premises;
  - c) after-use options, including the preferred option;
  - d) final contour plan of the premises at the completion of waste filling;
  - e) final contour plan after capping and rehabilitation of the premises (allowing for settlement);
  - f) capping design and specifications for cap installation;
  - g) surface water drainage system;
  - h) landfill gas management system;
  - i) leachate collection and disposal after landfill closure;
  - j) provision for irrigation measures to promote vegetation on the final surface;
  - k) proposed cap protection measures and settlement monitoring program; and
  - l) anticipated period of and provisions for after-care of the premises.

### Complaints

- 3.13. The licence holder must keep a written record of all complaints received concerning the environmental impact of the premises which includes:
- a) name and address of complainant;
  - b) date and time of complaint;
  - c) location from which complaint arose;
  - d) general description of the nature of the complaint;
  - e) approximate wind direction and temperature at the time of the complaint;
  - f) the likely source of the cause of the complaint; and
  - g) action taken by licence holder.

### Annual Reporting

- 3.14. By 1 October each year the licence holder must submit a report to EPA on the operations at the premises during the previous financial year which includes:
- a) the results of the groundwater monitoring program required by conditions 3.1 to 3.4 with monitoring bores identified by their Groundwater Database Number;
  - b) assessment by an appropriately qualified and experienced hydrogeologist of the results of the groundwater monitoring including trends in quality and potential impacts on beneficial uses of groundwater and a review of the basis for forward leachate behaviour and groundwater impact;
  - c) certification by an appropriately qualified and experienced hydrogeologist that groundwater quality objectives as specified in State environment protection policy (Groundwaters of Victoria) are not being exceeded;
  - d) leachate management report including:

- i) volume extracted from the landfill;
- ii) results of leachate monitoring program required by conditions 3.6 to 3.7;
- iii) program/method for preventing odours; and
  - iv) method and volume of leachate disposed;
- e) summary of number, nature and action taken in regard to any environmental complaints;
- f) a contour plan of the premises as at the end of the previous financial year;
- g) the remaining air space at the landfill and projected landfill life;
- h) a review of the progressive premises rehabilitation plan and any proposed changes; and
- i) a review of performance against the measures specified in the Environment Improvement Plan and identify any proposed changes to the plan.

### Groundwater Audit Report

3.15. By no later than 1 October each year, the licence holder must submit to the Authority an environmental audit report prepared by an environmental auditor appointed under the *Environment Protection Act 1970* in relation to the risk of any possible harm or detriment to groundwaters caused by the activities of the licence holder on the premises as determined by:

- a) the review of any relevant data including but not limited to the leachate management records and the results of any sampling and analysis from relevant groundwater monitoring bores and leachate sumps;
- b) an inspection of any relevant activity on the site as the auditor sees fit; and
- c) the taking of any sample, measurement, reading or test as the auditor sees fit;

that are relevant to the impact of the landfill's operations on the quality of local groundwater.

3.16. Specifically, the environmental audit report referred to in Condition 3.15 shall confirm:

- a) that groundwater quality objectives as specified in State environment protection policy (Groundwaters of Victoria):
  - (i) are being met at the premises; or
  - (ii) are not being met at the premises and recommend measures, including an implementation timetable, necessary to ensure groundwater quality objectives will be met; or
- b) that the status of groundwater quality objectives at the premises can not be determined and recommend measures necessary, including an implementation timetable, to ensure that the status of the groundwater quality will be able to be determined.

### Landfill Levy

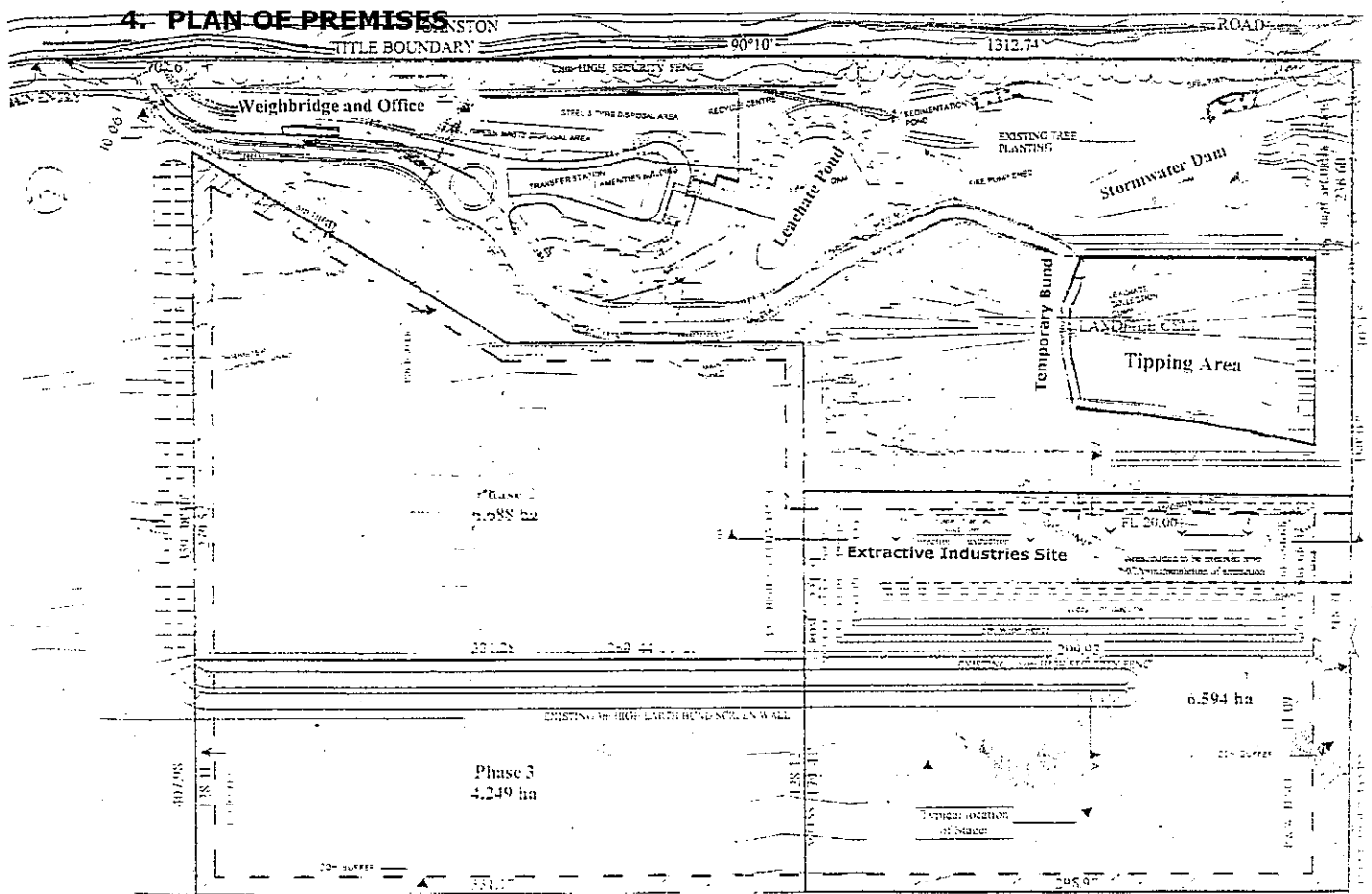
3.17. The licence holder must submit a landfill levy statement and accompanying payment quarterly as follows:

- a) July-September quarter – paid on or before 31 December;
- b) October-December quarter – paid on or before 31 March;

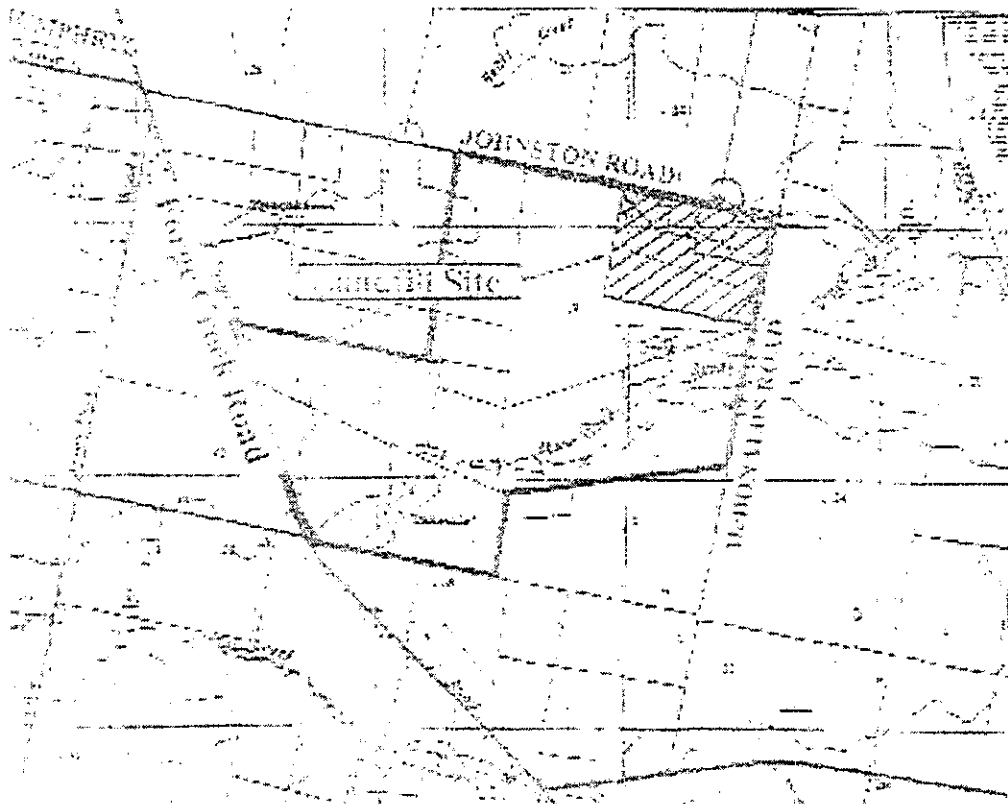
- c) January-March quarter – paid on or before 30 June; and
- d) April-June quarter – paid on or before 30 September to reconcile previous quarterly payments with the amount of levy payable in respect of waste deposited during that financial year.

3.18. The statement referred to in condition 3.17 must be supported by accurate records detailing the quantity of municipal waste received and cover material used during each quarter.





Plan of Premises



Locality Plan