

**STATUS OF THIS DOCUMENT**

This document has been produced by the Office of the Appeals Convenor as an electronic version of the original Statement for the proposal listed below as signed by the Minister and held by this Office. Whilst every effort is made to ensure its accuracy, no warranty is given as to the accuracy or completeness of this document.

The State of Western Australia and its agents and employees disclaim liability, whether in negligence or otherwise, for any loss or damage resulting from reliance on the accuracy or completeness of this document.

Copyright in this document is reserved to the Crown in right of the State of Western Australia. Reproduction except in accordance with copyright law is prohibited.

Published on 21 January 2008

Statement No. 761

**STATEMENT THAT A REVISED PROPOSAL MAY BE IMPLEMENTED  
(PURSUANT TO THE PROVISIONS OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)**

**SOUTHERN LANDFILL PROJECT, SOUTH CARDUP  
STAGES 1 & 2  
MODIFIED FOOTPRINT**

**Proposal:** The footprint modification of the South Cardup landfill, as documented in schedule 1 of this statement.

Stage 2 of the landfill will be reduced by 1.2 hectares, while additional landfill cells, totalling 4 hectares, will be included in the modified footprint. The cells are located in between the Stage 1 and 2 landfills and will lead to an overall increase of 2.8 hectares from the original landfill footprint.

**Proponent:** West Australian Landfill Services Pty Ltd

**Proponent Address:** 116 Kurnall Road, WELSHPOOL WA 6106

**Assessment Number:** 1634

**Previous Assessment Number:** 741

**Previous Statement Number:** 354 (published 9 May 1994)

**Report of the Environmental Protection Authority:** Bulletin 1218

**Previous Report of the Environmental Protection Authority:** Bulletin 702

The conditions and procedures of this statement supersede the conditions and procedures of Statement No. 354 in accordance with section 45B of the *Environmental Protection Act 1986*.

The revised proposal to which the above report of the Environmental Protection Authority relates may be implemented subject to the following conditions and procedures:

**1 Proposal Description**

- 1-1 The proponent shall implement the proposal as documented and described in schedule 1 of this statement subject to the conditions and procedures of this statement.

## **2 Proponent Environmental Management Commitments**

2-1 The proponent shall fulfill the environmental management commitments contained in schedule 2 of this statement.

**Note:** The content of the environmental management commitments contained in schedule 2 is intended to be interpreted in the context of the content of Appendix 2 to Bulletin 1218, in particular, the Environmental Protection Authority's Report on the status of the Revised Conditions and Revised Commitments set out therein and –

- (a) the expressed understanding of the Authority that Revised Commitments 8, 10, 11, 23, 24, 31, 33, 34, 41, 42-44, 45-46, 50, 71 and 72 are part of the proposal described in Schedule 1 to this Statement; and
- (b) the expressed intention of the Authority to manage Revised Commitments 5-8, 9, 12-22, 25, 29, 32, 35-40, 47-49, 51-53, 55-64, 68 and 70 under Part V of the *Environmental Protection Act 1986*

## **3 Proponent Nomination and Contact Details**

3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.

3-2 The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation (CEO) of any change of the name and address for the serving of notices or other correspondence within 30 days of such change.

## **4 Time Limit of Authorisation**

4-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void within five years after the date of this statement if the proposal to which this statement refers is not substantially commenced.

4-2 The proponent shall provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

## **5 Compliance Reporting**

5-1 The proponent shall submit annually an audit compliance report, for the previous twelve-month period.

The audit compliance report shall:

1. be endorsed by the proponent's Managing Director or a person, approved in writing by the Department of Environment and Conservation, delegated to sign on the proponent's Managing Director's behalf;

2. include a statement as to whether the proponent has complied with the conditions, procedures, commitments and actions within the Environmental Management Plans;
  3. identify all non-compliances and describe the related corrective and preventative actions taken;
  4. review the effectiveness of all corrective and preventative actions taken;
  5. provide verifiable evidence of compliance with the conditions, procedures and commitments;
  6. describe the state of implementation of the proposal; and
  7. be prepared in accordance with an audit program and in a format acceptable to the Department of Environment and Conservation.
- 5-2 The proponent shall make the audit compliance report publicly available in a manner approved by the Department of Environment and Conservation.

## **6 Performance Review**

- 6-1 The proponent shall submit to the CEO a Performance Review Report at the conclusion of the first and second years after the start of production and then, at such intervals as the CEO may regard as reasonable, which addresses:
1. the major environmental issues associated with implementing the project; the environmental objectives for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those objectives;
  2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
  3. significant improvements gained in environmental management, including the use of external peer reviews;
  4. stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
  5. the proposed environmental objectives over the next five years, including improvements in technology and management processes.

## **7 Landfill Decommissioning and Post-closure Management Plan.**

- 7-1 Within 12 months of the commencement of construction of the expanded landfill, the proponent shall submit a draft Landfill Decommissioning and Post-closure Management Plan designed to ensure that the site is left in an environmentally acceptable condition and prepared on advice of the Environmental Protection Authority, for approval of the Department of Environment and Conservation.
- 7-2 The Landfill Decommissioning and Post-closure Management Plan shall address:
1. The progressive establishment and maintenance of shallow rooted native vegetation, local to the area that blends in with the surroundings, on completion of

- each landfill cell. Vegetation choice should also be made in consultation with the Department of Environment and Conservation;
2. Choice of capping materials which are consistent with Best Practice Guidelines, which shall include a low permeability layer, followed by a sub-soil layer and a final layer of soil suitable for vegetation establishment;
  3. Ongoing operational practice to ensure that the final landfill surface will be constructed to a predetermined crossfall to enhance surface runoff while safeguarding against erosion and to ensure that final contours of the site will blend into the surrounding environment;
  4. Monitoring and management of ground and surface water; and
  5. Response, mitigation and contingency measures to be implemented if ground and surface water quality is affected to an unacceptable level as determined by the Environmental Protection Authority.
- 7-3 The Landfill Decommissioning and Post-closure Management Plan shall be developed in consultation with the Serpentine Jarrahdale Shire, so as to ensure that the Plan takes account of and complements provisions of the district and local structure plan.
- 7-4 During the development of the Landfill Decommissioning and Post-closure Management Plan, the proponent must consult with and obtain input from the community and the Stakeholder Consultation Group.
- 7-5 The proponent shall initiate an independent peer review of the draft Landfill Decommissioning and Post-closure Management Plan.
- 7-6 The Landfill Decommissioning and Post-closure Management Plan shall be reviewed by the proponent, in consultation with the Shire and the Stakeholder Consultation Group at the conclusion of the various different stages of the operation and stages of significant future urban development, or every two years; whichever is the lesser period.
- 7-7 At least two years prior to the anticipated date of closure, or at a time approved by the Environmental Protection Authority, the proponent shall submit a Final Landfill Decommissioning and Post-closure Management Plan, taking into account all comments and recommendations (if any) received from the independent peer review referred in condition 7-5, to the requirements of the Minister for the Environment on the advice of the Environmental Protection Authority.
- 7-8 The proponent shall implement the Final Landfill Decommissioning and Post-closure Management Plan required by condition 7-7 until such time as the Minister for the Environment determines, on advice of the Environmental Protection Authority, that the proponent's post-closure responsibilities are complete.
- 7-9 The proponent shall make the draft Final Landfill Decommissioning and Post-closure Management Plan required by conditions 7-1 and 7-7 publicly available.

## **Financial Assurance**

- 8-1 As security for the due and punctual observance and performance by the proponent of the requirements of conditions 7-1 to 7-8 (inclusive) and condition 2-1 (insofar as it requires the proponent to fulfil environmental management commitment No. 4 contained in Schedule 2 to this Statement), the proponent shall on demand, before the proposal is commenced, provide to the Minister and the Chief Executive Officer of the Department of Environment and Conservation, and thereafter maintain, a financial assurance in the form of an unconditional and irrevocable bank guarantee, from a guarantor acceptable to the Chief Executive Officer, in the such amount as in the opinion of the Chief Executive Officer represents a reasonable estimate of the likely costs and expenses that may be incurred in taking action or reimbursing a person for any action taken as a result of a failure of the proponent to duly and punctually comply with the requirements of the conditions of the Statement or any Licence issued pursuant to the *Environmental Protection Act 1986* , Part V (“the Financial Assurance”).
- 8-2 On conclusion of the landfill accepting waste, the proponent shall prepare and submit to the Chief Executive Officer a re-assessment of the risk covered by the Financial Assurance in order to provide for the recalculation of the amount according to the risk profile. Notwithstanding conditions 8-5 and 8-7, the Chief Executive Officer shall review the amount of the Financial Assurance having regard to the proponent's re-assessment of risk prepared and submitted pursuant to condition 8-2.
- 8-3 The Financial Assurance may be called on or used in accordance with section 86E of the *Environmental Protection Act 1986* if the proponent fails to implement the proposal in accordance with condition 7 or condition 2-1 (insofar as it requires the proponent to fulfil environmental management commitment No. 4 contained in Schedule 2 to this Statement).
- 8-4 The Financial Assurance shall be discharged by the Chief Executive Officer when the Minister determines that the proponent’s post-closure responsibilities are complete, under condition 7-4.
- 8-5 The Chief Executive Officer may review the Financial Assurance required by condition 8-1 at any time and if, on such review, the Chief Executive Officer considers that a Financial Assurance has ceased to satisfy the requirement for the opinion referred to in section 86D of the *Environmental Protection Act 1986*, then the Chief Executive Officer may, with the approval of the Minister for the Environment, require the proponent to furnish replacement or additional Financial Assurance for performance by the proponent of its obligations under conditions 7-1 to 7-8 (inclusive) and condition 2-1 (insofar as it requires the proponent to fulfil environmental management commitment No. 4 contained in Schedule 2 to this Statement) .
- 8-6 The proponent shall within 14 days after written request by the Chief Executive Officer furnish replacement or additional Financial Assurance in such sum as the Chief Executive Officer shall nominate, in a form and upon terms and conditions approved by the Chief Executive Officer, which shall not be unreasonably withheld. On receipt of approved replacement security the Chief executive Officer shall release and discharge the original Financial Assurance.
- 8-7 In any event, the amount of Financial Assurance shall be reviewed every five years by the Chief Executive Officer in consultation with the proponent and the Shire of

Serpentine Jarrahdale and the Stakeholder Consultation Group and in the course of that review may be re-assessed in accordance with the criteria specified in section 86D of the *Environmental Protection Act 1986*.

- 8-8 The Financial Assurance is intended to take the place of the performance bond in the same amount currently held by the Shire of Serpentine Jarrahdale and the implementation of and requirement to comply with this condition is dependent upon the Shire of Serpentine Jarrahdale discharging or returning to the proponent the bond which it currently holds.

## Notes

1. The CEO may seek the advice of the Environmental Protection Authority, government agencies and relevant parties, as necessary, for the preparation of written notice to the proponent.
2. The proponent shall relinquish the nomination following the procedure under section 38(6a) of the *Environmental Protection Act 1986*.
3. The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*. The Department of Environment and Conservation has advised that the Part V approval will include a requirement that a liner leak detection system for the new cells be installed.

David Templeman MLA  
MINISTER FOR THE ENVIRONMENT; CLIMATE CHANGE; PEEL

## Schedule 1

### The Proposal (Assessment No. 1634)

The proposal is to modify the footprint of the existing South Cardup landfill by reducing the size of the Stage 2 landfill area by 1.2 hectares and including an area of approximately 4 hectares between the existing footprints between the Stage 1 and Stage 2 areas, including the Sedimentation Dam. The net increase in landfill footprint is 2.8 hectares.

The modified footprint is shown in Figure 2 (attached).

The proponent will also continue to implement the proposal described in the Southern Landfill South Cardup Public Environmental Review document (March 1993) prepared by AGC Woodward-Clyde Pty Limited, except for modifications as described in the revised proposals, Proposed Landfill Footprint Modification South Cardup Landfill (April 2003) and South Cardup Landfill Modified Footprint Supporting Documentation (February 2006), both prepared by ATA Environmental Pty Ltd.

The main characteristics of the original and modified footprint proposals are summarised in Table 1 below.

**Table 1 - Key Proposal Characteristics**

Element	Current	Modified Footprint
Site Area	39ha	39ha
Landfill Area	Stage 1 – 6.9ha Stage 2 – 7.8ha Total 14.7ha	Combined total – 17.5ha
Landfill Capacity      Airspace	Stage 1 – 1.6Mm <sup>3</sup> Stage 2 – 1.0 Mm <sup>3</sup> Total 2.6 Mm <sup>3</sup>	Combined total – 4.8 Mm <sup>3</sup>
Maximum Landfill Heights	Stage 1 – 173 mAHD Stage 2 – 140 mAHD	Unchanged
Operating Hours for Waste Acceptance	6:00 – 17:00 Monday to Friday 7:00 – 12:00 Saturday 7:00 – 14:00 Public Holidays (excluding Good Friday & Christmas Day)	Unchanged
Operational Life (total)	Stage 1 – 5 years Stage 2 – 3 years Total 8 years	Combined total – 15 years
Nominal Waste Acceptance Rate	225,000 tonnes per year (current)	Unchanged – possible reduction due to future recycling activities.

#### Abbreviations:

ha – hectares

Mm<sup>3</sup> – mega cubic metres

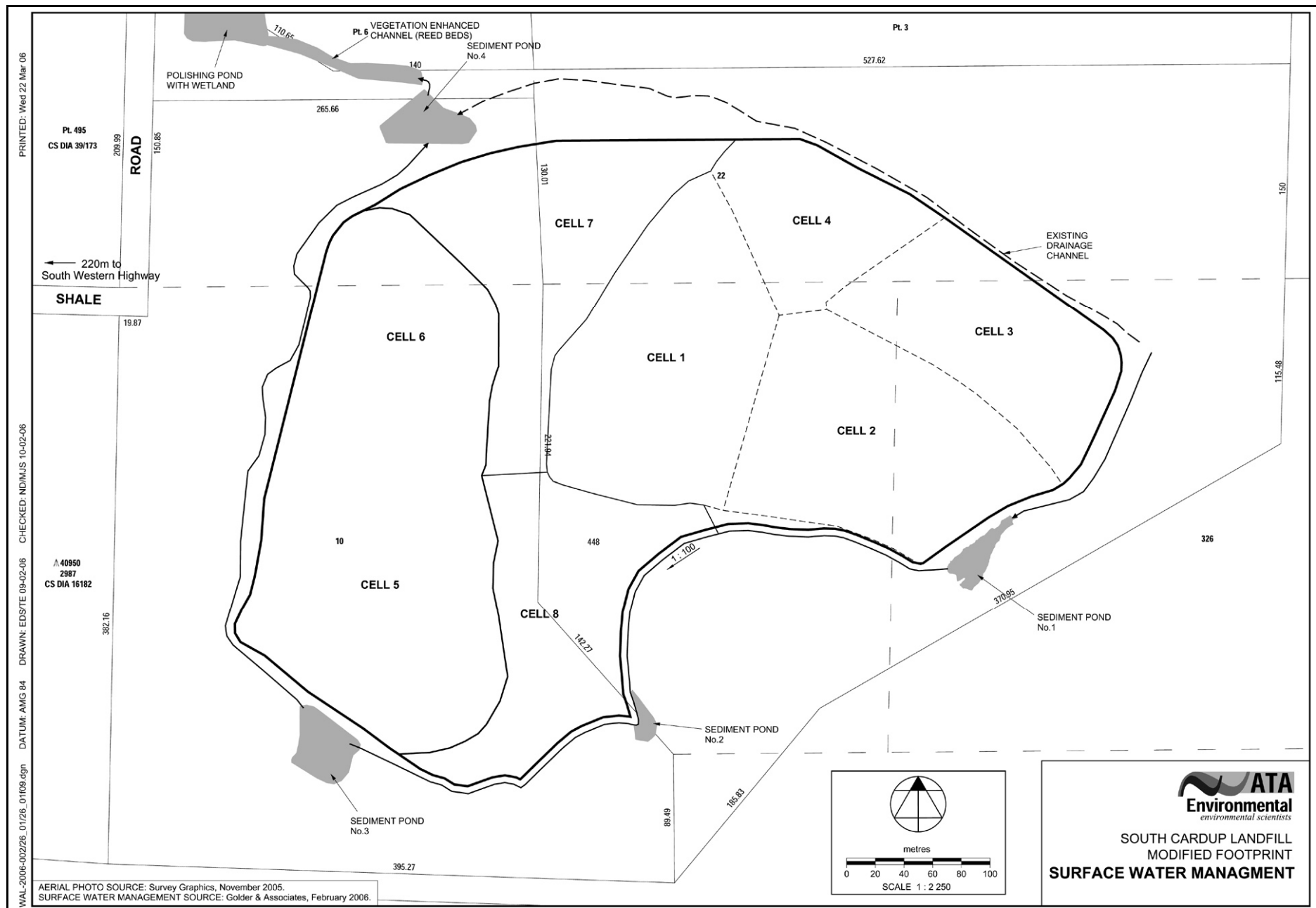
mAHD – metres Australian height datum

#### Figures (attached)

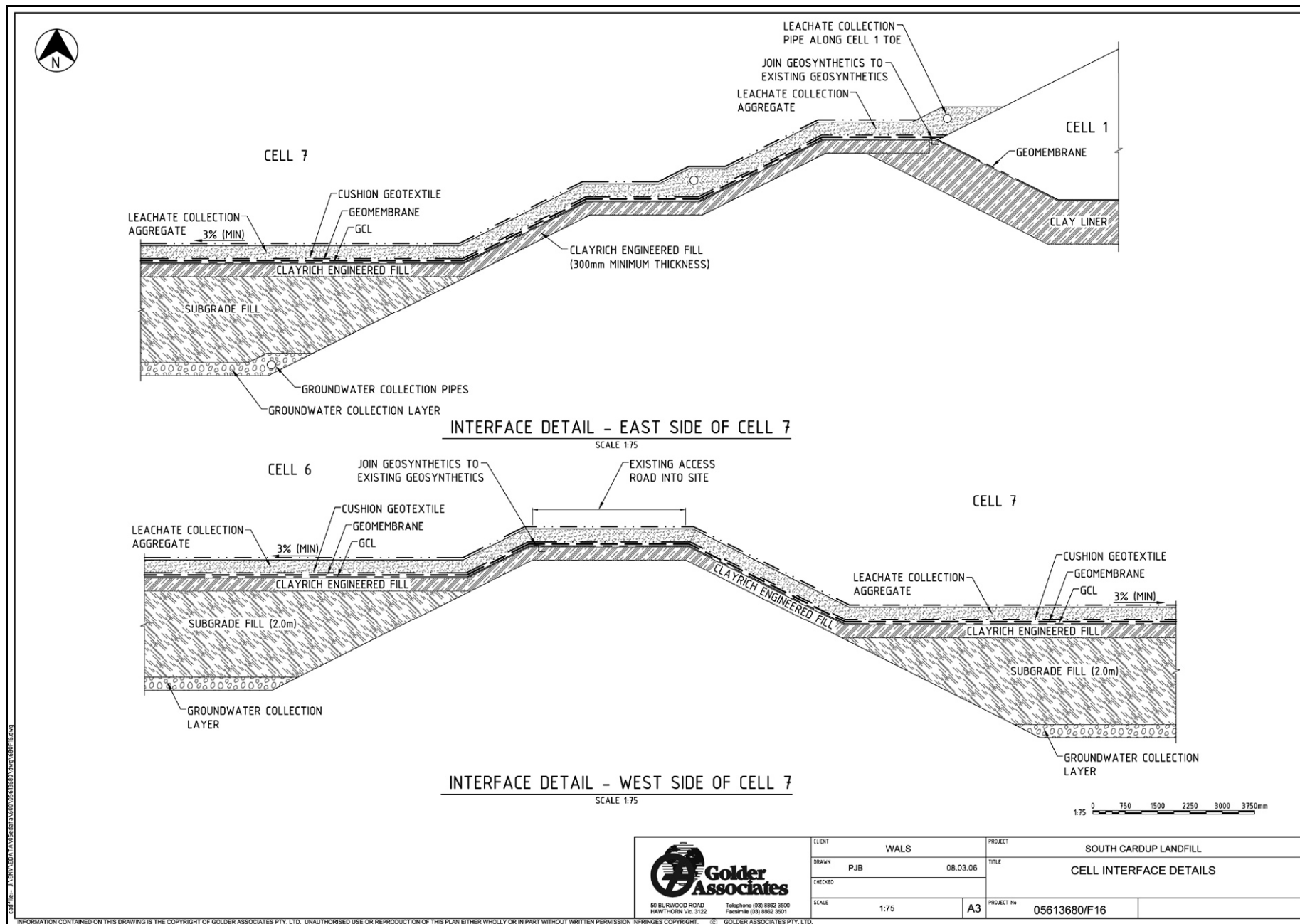
1. Location of South Cardup Landfill
2. Landfill cell and surface water management details
3. Cell interface details
4. Fault line passing beneath modified landfill footprint
5. Leachate collection system





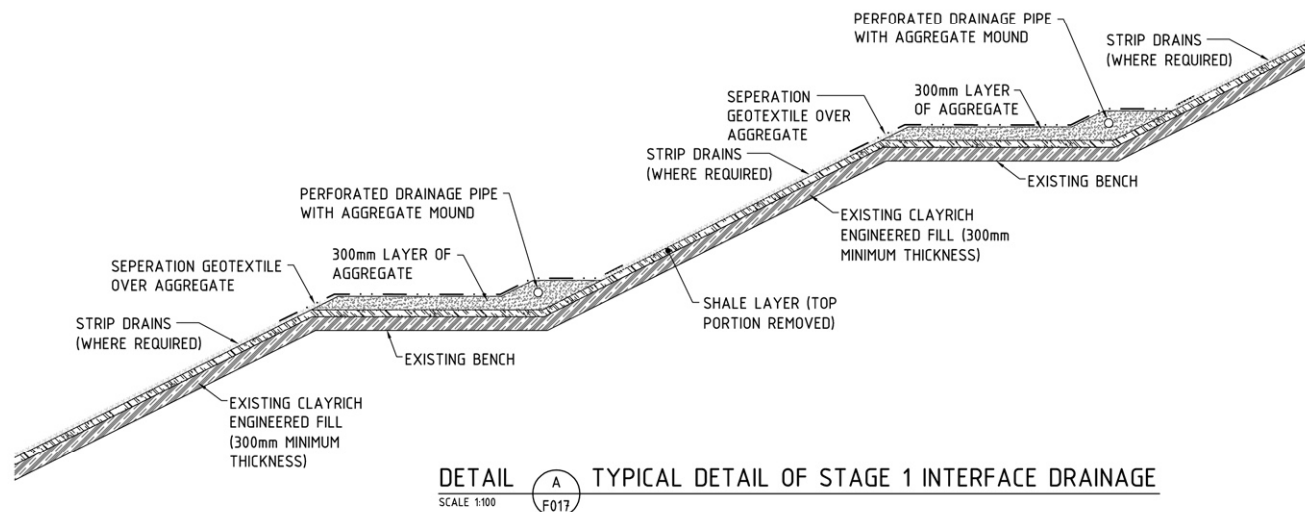


**Figure 2: Landfill cell and surface water management details**



**Figure 3: Cell interface details**





1:100 0 1 2 3 4 5m



CLIENT	WALS	PROJECT	SOUTH CARDUP LANDFILL
DRAWN	PJB 27.03.06	TITLE	MODIFIED FOOTPRINT STAGE 1 INTERFACE DRAINAGE TYPICAL DETAILS
CHECKED	FWG 28.03.06	PROJECT No	05613680/F18
SCALE	1:100	A3	

Figure 5: Leachate collection system

Proponent  
Environmental Management Commitments

April 2006

**SOUTHERN LANDFILL PROJECT,  
SOUTH CARDUP  
STAGES 1 & 2  
MODIFIED FOOTPRINT  
(Assessment No. 1634)**

**WEST AUSTRALIAN LANDFILL SERVICES PTY LTD**

## PROPONENT'S ENVIRONMENTAL MANAGEMENT COMMITMENTS

### SOUTHERN LANDFILL PROJECT, SOUTH CARDUP, STAGES 1 & 2, MODIFIED FOOTPRINT (Assessment No. 1634)

No.	Topic	Action	Objectives	Timing	Advice
1.	Flora and Fauna	Prepare and implement a Flora, Fauna and Vegetation Management Plan which addresses the management and protection of regionally and locally significant vegetation found in the landfill site.	To ensure the protection and proper management of surrounding vegetation.	Prior to submission of Works Approval for the construction of the modified footprint	
2.	Stakeholder Consultation	<p>Prepare and implement a Stakeholder Consultation and Communication Strategy which includes, but is not necessarily limited to:</p> <ol style="list-style-type: none"> <li>1. A review of the current structure and terms of reference for the stakeholder consultative group ("Stakeholder Consultation Group");</li> <li>2. Appointment of an independent chairperson for the Stakeholder Consultation Group in consultation with stakeholders;</li> <li>3. Identification of relevant stakeholders;</li> <li>4. Outline opportunities to discuss the management plans, monitoring programmes and studies with stakeholders;</li> <li>5. Reporting on environmental performance; and</li> <li>6. A review of current methods of communication with stakeholders and the community, with a view to, <i>inter alia</i>, including processes for the assessment</li> </ol>	To ensure continuation of open and transparent consultation and communication with stakeholders, a forum to raise concerns and the distribution of information to the community and to ensure that outcomes are incorporated into the management of the landfill.	Prior to the commencement of construction	

		and interpretation of reports on performance monitoring being communicated in written and oral form by suitably qualified persons.			
3.	Leachate Management	The proponent will prepare and implement a Leachate Management Plan which addresses the collection, containment, treatment, recirculation, disposal, management and monitoring of leachate generated at the landfill as well as the sequencing of operations to minimise the production of leachate.	To ensure that leachate generated from the landfilling of waste is appropriately managed to protect the quality of ground and surface water.	Prior to the commencement of construction	
4.	Operational Contingency	<p>The proponent will prepare and implement an Operational Contingency Management Plan detailing the response, mitigation and contingency measures to be implemented if ground and surface water quality is affected to an unacceptable level during the operation of the landfill.</p> <p>The Operational Contingency Management Plan will be subject to independent peer review by an appropriate expert/agency to ensure that best practice management is adopted.</p>	To ensure that any beneficial uses of ground and surface water resources are protected and managed.	Prior to the commencement of construction	