

## Project Approval

### ***Section 75J of the Environmental Planning and Assessment Act 1979***

As delegate of the Minister for Planning and Infrastructure under delegation executed on 14 September 2011, we the Planning Assessment Commission of New South Wales (the Commission) approve the application referred to in Schedule 1, subject to the conditions specified in Schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the Project

Member of the Commission

Member of the Commission

Sydney

4 July 2012

***The Department has prepared a consolidated version of the consent which is intended to include all modifications to the original determination instrument.***

***The consolidated version of the consent has been prepared by the Department with all due care. This consolidated version is intended to aid the consent holder by combining all consents relating to the original determination instrument but it does not relieve a consent holder of its obligation to be aware of and fully comply with all consent obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.***

**CONSOLIDATED CONSENT**

**SCHEDULE 1**

**Application Number:** 06\_0220

**Applicant:** Armidale Regional Council

**Consent Authority:** Minister for Planning

**Site:** **1238 Grafton Road, Metz**  
**Lot 1 DP 1206469**

**Development:** Armidale Regional Landfill

FOR INFORMATION

## CONSOLIDATED CONSENT

### SUMMARY OF MODIFICATIONS

Application Number	Determination Date	Decider	Modification Description
MP06_0220-Mod-1	11 August 2015	A/Director, Industry Assessments	Amendment of the timing for the submission of the ground and water surface monitoring plan, installation of a new weighbridge, realignment of the internal access road, amendment of the culvert design, removal of the commitment to install a cattle grid, and removal of the 'cell cap layer' from the calculation of the maximum cell volume.
MP06_0220-Mod-2	30 April 2018	A/Director, Industry Assessments	Leachate liner, leachate pond liner and leachate collection system design amendments
MP06_0220-Mod-3	18 December 2024	Team Leader, Industry Assessments	Removal of weighbridge and wheelwash, as well as administrative update to land description

# CONSOLIDATED CONSENT

## SCHEDULE 2 DEFINITIONS

<b>BCA</b>	Building Code of Australia
<b>Council</b>	<a href="#">Armidale Regional Council</a>
<b>Day</b>	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
<b>DECCW</b>	former Dept of Environment, Climate Change and Water
<b>Department</b>	<b>Department of Planning, Housing and Infrastructure</b>
<b>EA</b>	Environmental assessment titled Armidale Regional Landfill Environmental assessment (April 2010) and the associated Submissions Report 12 April 2011.
<b>EPA</b>	<a href="#">Environment Protection Authority</a>
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>
<b>EP&amp;A Regulation</b>	<i>Environmental Planning and Assessment Regulation 2021</i>
<b>EPL</b>	Environment Protection Licence
<b>Evening</b>	The period from 6pm to 10pm
<b>Feasible</b>	Feasible relates to engineering considerations and what is practical to build
<b>Incident</b>	An incident causing or threatening material harm to the environment, and/or an exceedance of the limits or performance criteria in this approval
<b>Land</b>	In general, the definition of land is consistent with the definition in the EP&A Act.
<b>LEMP</b>	Landfill Environmental Management Plan
<b>LLS</b>	<a href="#">Local Land Service</a>
<b>Harm to the environment</b>	Harm to the environment involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
<b>Minister</b>	<b>Minister for Planning and Public Spaces (or delegate)</b>
<b>Mitigation</b>	Activities associated with reducing the impacts of the Project
<b>Modification Assessments</b>	<p><b>Modification 1 to MP 06_0220 (MOD 1), including supporting documentation prepared by AECOM Australia Pty Ltd, dated 2 March 2015 and a Response to Submissions Letter prepared by AECOM Australia Pty Ltd and dated 24 April 2015</b></p> <p><b>Modification 2 to MP 06_0220 (MOD 2), including supporting documentation prepared by GHD Pty Ltd, dated 14 February 2018</b></p> <p><b>Modification 3 to MP 06_0220 (MOD 3), including supporting documentation prepared by Armidale Regional Council, undated</b></p>
<b>Night</b>	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
<b>NOW</b>	NSW Office of Water
<b>OEH</b>	<a href="#">Office of Environment and Heritage</a>
<b>Operation</b>	The receipt of waste on site and the conduct of waste related operations such as waste compaction, intermediate waste covering and landfill cell capping.
<b>POEO Act</b>	<i>Protection of the Environment Operations Act 1997</i>
<b>Privately-owned Land</b>	Land not owned by the Proponent or where a private agreement does not exist between the Proponent and the land owner
<b>Project</b>	The development described in the EA
<b>Proponent</b>	Armidale Dumaresq Council, or its successor
<b>Reasonable</b>	Reasonable relates to the application of judgment in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements.
<b>Rehabilitation</b>	The treatment or management of land disturbed by the project for the purpose of

CONSOLIDATED CONSENT

establishing a safe, stable and non-polluting environment

RMS	Road and Maritime Services
Secretary	Secretary of the Department, or nominee
Site	The land described in Schedule 1
Statement of Commitments	The Proponent's Statement of Commitments in APPENDIX A

FOR INFORMATION

### SCHEDULE 3

#### ADMINISTRATIVE CONDITIONS

##### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Project.

##### TERMS OF CONSENT

2. **The Proponent shall carry out the Project generally in accordance with the:**
  - a) **EA;**
  - b) **statement of commitments (see APPENDIX A);**
  - c) **site layout plans and drawings in the EA, (as shown in APPENDIX B);**
  - d) **modification assessments.**
3. If there is any inconsistency between the above documents specified in condition 2, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
4. The Proponent shall comply with any reasonable requirement/s of the **Secretary** arising from the Department's assessment of:
  - a) any reports, plans, strategies, programs or correspondence that are submitted in accordance with this approval; and
  - b) the implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.

##### LIMITS OF APPROVAL

5. The Proponent shall not exceed the maximum volume for each land-fill cell specified in Table 1. **Calculation of the cell-volume shall include the intermediate non-waste layers but shall not include the leachate barrier, leachate drainage layer, the re-compacted clay liner at the base of the cell or the cell cap.**

**Table 1** – Maximum volume for each landfill cell

Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
211,000 m <sup>3</sup>	211,000 m <sup>3</sup>	211,000 m <sup>3</sup>	211,000 m <sup>3</sup>	211,000 m <sup>3</sup>

6. The Proponent shall prepare and submit a waste management performance review for the project. The review must:
  - a) be prepared by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
  - b) be submitted to the **Secretary** at least 12 months before the proposed commencement of each additional landfill cell;
  - c) report on Council's progress in meeting current waste avoidance and resource recovery targets; and
  - d) recommend necessary measures or actions to improve Council's waste avoidance and resource recovery performance to meet current targets.

*Note: The Proponent may submit the report in conjunction with the Annual Review under Condition 4 of Schedule 5 or the Independent Environmental Audit under Condition 8 of Schedule 5.*

##### STRUCTURAL ADEQUACY

7. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the BCA.

*Note: Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.*

## **SUBDIVISION**

8. Before commencing any work on the site, the Proponent shall register a new lot with the Land and Property Information Centre as generally described by the red out-line shown on the site layout in APPENDIX B.

## **PROTECTION OF PUBLIC INFRASTRUCTURE**

9. The Proponent shall:
  - a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the Project; and
  - b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the Project.

## **OPERATION OF PLANT AND EQUIPMENT**

10. The Proponent shall ensure that all plant and equipment used for the Project is:
  - a) maintained in a proper and efficient condition; and
  - b) operated in a proper and efficient manner.

## **STAGED SUBMISSION OF PLANS OR PROGRAMS**

11. With the approval of the **Secretary**, the Proponent may submit any plan or program required by this approval on a progressive basis.

## **COMPLIANCE**

12. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:
  - a) take all reasonable and feasible steps to bring the operation back into compliance;
  - b) ensure that the exceedance does not recur;
  - c) consider all reasonable and feasible options for remediation (where relevant) and how to prevent a recurrence and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
  - d) implement remediation and prevention measures as directed by the **Secretary**,  
to the satisfaction of the **Secretary**.

## SCHEDULE 4

### SPECIFIC ENVIRONMENTAL CONDITIONS

#### WASTE MANAGEMENT

##### Restrictions on Receipt of Waste

1. The Proponent shall only receive waste on site that is authorised for receipt by an EPL.

#### LANDFILL OPERATION

##### Cover Material

2. The Proponent shall ensure that all waste cover material used on site is virgin excavated natural material and/or alternative daily cover, as approved in writing by the [EPA](#).

##### Security

3. The Proponent shall:
  - a) install and maintain a perimeter fence and security gates;
  - b) ensure that the security gates are locked whenever the site is unattended.

#### SOIL AND WATER

##### Discharge Limits

4. The Proponent shall ensure that all surface water discharges from the site comply with the:
  - a) discharge limits (both volume and quality) set for the development in any EPL; or
  - b) relevant provisions of the POEO Act.

##### Leachate Containment System

5. Each landfill cell must be constructed with a leachate barrier that:
  - a) is designed in consultation with the [EPA](#) and to the satisfaction of the [Secretary](#);
  - b) addresses dispersive soil in the A2 and B soil horizons;
  - c) meets independent conformance testing in accordance with the NSW EPA Environmental Guidelines Solid waste landfills (2006); and
  - d) includes:
    - a re-compacted clay liner at least **900 mm thick or a geosynthetic clay liner** with an in-situ co-efficient of permeability of less than  $10^{-9}$  metres per second covering the entire floor and walls of each waste disposal cell;
    - a flexible membrane liner stabilised against or protected from ultra violet light with a minimum co-efficient of permeability of less than  $10^{-14}$  metres per second covering the entire floor and walls of each waste disposal cell; and
    - a leachate drainage layer for each landfill cell comprising a minimum 300 mm layer of drainage medium:
      - with a permeability of not less than  $1 \times 10^{-3}$  metres per second;
      - which is chemically resistant to leachate; and
      - which is capable of withstanding the weight of overlying waste;
    - **a leachate layer for the landfill cell sidewalls comprising of a Drainage geocomposite layer:**
      - **with a permeability of not less than  $1 \times 10^{-3}$  metres per second;**
      - **which is chemically resistant to leachate; and**
      - **which is capable of withstanding the weight of overlying waste;**



6. The leachate collection, conveyance and storage system must:

- a) be designed in consultation with the **EPA** and to the satisfaction of the **Secretary**;
- b) be designed to address dispersive soil in the A2 and B soil horizons;
- c) not include leachate discharge or disposal except by way of:
  - evaporation;
  - irrigation on to an active landfill cell;
  - re-injection into an active or capped landfill cell;
  - transport to a facility licensed to accept such waste;
- d) include a leachate storage dam that has a minimum leachate storage capacity of 12 megalitres.

7. The leachate storage dam must:

- a) be designed in consultation with the **EPA** and to the satisfaction of the **Secretary**;
- b) be designed to address dispersive soil in the A2 and B soil horizons;
- c) allow for the level of leachate in the storage dam to be maintained such that there is no overflow
- d) be designed to contain a 100-year ARI 3 day rainfall event and provide 150mm freeboard for wave action, providing a total storage capacity of 14.6 ML;
- e) include high-level alarm and/or interlock system configured such that the alarm is activated and any pump or gravity flow of leachate to the dam is automatically shut down prior to dam overflow;
- f) include a leachate barrier comprising:
  - re-compacted clay or similar material at least **600 mm** thick with an in situ coefficient of permeability of less than  **$2 \times 10^{-10}$**  metres per second covering the entire floor and walls of the dam/s; **and**
  - a flexible membrane liner stabilised against or protected from ultra violet light with a minimum co-efficient of permeability of less than  $10^{-14}$  metres per second covering the entire floor and walls of the dam/s.

#### **Construction Quality Assurance Plan**

8. The Proponent shall prepare and implement a Construction Quality Assurance Plan. The plan must:

- a) be prepared in consultation with OEH by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
- b) be approved by **Secretary** prior the commencement of construction;
- c) specify leachate-barrier material selection and construction techniques;
- d) include a geotechnical assessment and map of suitable construction clay;
- e) specify validation of thickness and permeability of leachate barrier/s;
- f) include an environmental-awareness site-induction for construction personnel.

*Note: The geotechnical assessment and map must be more detailed than the assessment and map in the EA.*

#### **Leachate Management Plan**

9. The Proponent shall prepare and implement a Leachate Management Plan. The plan must:

- a) be prepared in consultation with **EPA** and **NOW** by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
- b) be approved by **Secretary** prior to the commencement of construction;
- c) include a water balance for the Project;
- d) include design specifications for the leachate containment system (see conditions 5, 6 and 7 of this schedule);
- e) include design specifications that address dispersive soil in the A2 and B soil horizons;
- f) include a ground and surface water monitoring plan for the site in consultation with **NOW**. The plan shall include details on:

- the number, design and location for the monitoring bores, including upstream groundwater bore/s for baseline data collection;
  - timelines for establishment and sampling regime(s) for the monitoring bores;
  - monitoring frequency, including monitoring during rainfall;
  - a schedule of contaminants to be monitored; and
  - reporting requirements for the sampling results
- The plan must be submitted to the **Secretary prior to commencement of construction** and be endorsed by NOW before submission.
  - The Proponent shall install the baseline monitoring bore and implement the baseline monitoring sampling program **obtaining a minimum of two-bi-monthly baseline sampling events** before commencing construction of the landfill.
  - The Proponent shall implement the approved ground and surface water monitoring plan to the satisfaction of the **Secretary**.
- g) ensure all surface waters are directed away from the leachate containment system;
- h) ensure all lateral flows in the A2 soil horizon are directed away from the leachate containment system.
- i) ensure any water that contacts waste or leachate is handled as leachate;
- j) include remedial action plan should leachate escape the leachate containment system.

#### **Stormwater Management**

10. Stormwater infrastructure must installed to the satisfaction of the **Secretary**: The design must:
- a) be prepared in consultation with NOW and **EPA** and to the satisfaction of the **Secretary**;
  - b) be approved by **Secretary** prior to the commencement of construction;
  - c) direct clean water in overland flow around operational parts of the site;
  - d) prevent cross-contamination of clean or sediment laden water with leachate;
  - e) direct all sediment laden water in overland flow
    - away from the leachate containment system;
    - to a sediment basin with capacity for a 5 day 95<sup>th</sup> percentile storm with a minimum storage capacity of 5250m<sup>3</sup>.
  - f) include a dry detention basin below the operational parts of the site with capacity for a 100 year ARI 3 day rainfall event with a minimum storage capacity of 30ML;
  - g) address stormwater run-off from ancillary parts of the site such as the access road.
11. The proponent shall manage the sediment basin so that it maintains capacity to store run-off from the 5 day 95th percentile storm.

#### **Soil and Water Management Plan**

12. The Proponent shall prepare and implement a soil and water management plan. The plan must:
- a) be prepared in consultation with the **EPA** and NOW by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
  - b) be approved by **Secretary** prior to the commencement of construction;
  - c) include design specifications for stormwater infrastructure (see conditions 10 and 11 of this schedule);
  - d) include design specifications for erosion and sediment control to;
    - minimise erosion and soil-loss;
    - set aside any topsoil in manner appropriate for re-use in site rehabilitation;
    - minimise the tracking of mud and waste by vehicles onto public roads.

- e) address the environmental and structural risks of dispersive soils in the A2 and B soil horizons;
- f) ensure that watercourse and natural drainage lines maintain natural hydrological flows and geomorphic integrity;
- g) address any Harvestable Right Order that might apply;
- h) specify work methods within riparian areas and drainage lines in accordance with the *Guidelines for Controlled Activities 2008*.

## Bunding

13. The Proponent shall store all chemicals, fuels and oils used on site in appropriately banded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund, unless double-skinned tanks are used. Any bunds shall be designed and installed in accordance with the requirements of all relevant *Australian Standards*, and/or EPA's *Environmental Protection Manual: Technical Bulletin Bunding and Spill Management*.

## Wastewater Management

14. The Proponent shall ensure that:
- a) The on-site waste water treatment system for staff amenities and vehicle-wash is operated in accordance with an approval under section 68 of the *Local Government Act 1993*.
  - b) the design of the system is consistent with Council's DCP (if applicable).

## NOISE

### Operating Hours

15. The Proponent shall comply with the operating hours in Table 2.

**Table 2** - Operating Hours

Activity	Day	Hours
Construction	Monday - Friday	7 am – 5 pm
	Saturday	8 am – 1 pm
	Any other time	Only with the prior written approval of OEH and subject to any conditions that may be imposed.
Operation	Monday - Friday	7 am – 5.30 pm
	Saturday	8 am – 6 pm
	Any other time	Only during an emergency. The details of any such incident must be reported in accordance with schedule 5, condition 6.

### Noise Limits

16. The Proponent shall ensure that the noise generated by the project does not exceed the emission limits in Table 3.

**Table 3** – Noise emission limits dB(A)

Receiver	Limit -
Residences on privately-owned land during construction	LA <sub>eq</sub> (15 minute) 40dB(A)
Residences on privately-owned land during operations	LA <sub>eq</sub> (15 minute) 35dB(A)
Residence on privately owned land known as 'Sherraloy' during operation of cell 1 only	LA <sub>eq</sub> (15 minute) 38dB(A)

#### Notes:

- LA<sub>eq</sub> (15 minute) is the level of noise equivalent to the average of noise levels occurring over the measured period (i.e. 15 minutes).
- For the purpose of noise measures required for this condition, the LA<sub>eq</sub> noise level must be measured or computed at any point within 30 metres of any residence not on the premises over a period of 15 minutes using "FAST" response on the sound level meter. Where it can be demonstrated that direct measurement at such a

*location is impractical, an alternative means of determining compliance under Chapter 11 of the NSW Industrial Noise Policy may be acceptable.*

- *Modification factors in Section 4 of the NSW Industrial Noise Policy apply to the measured noise levels.*
- *The noise emission limits apply under all meteorological conditions except during rain and wind speeds greater than 3m/s at 10m height; and under "non-significant weather conditions". Field meteorological indicators for non-significant weather conditions are described in the NSW Industrial Noise Policy, Chapter 5 and Appendix E in relation to wind and temperature inversions.*

17. Before operation commences a noise-easement must be registered on the title of the residual lot containing the dwelling on the farm 'Sherraloy' allowing the noise criteria as specified in condition 16 of this Schedule.
18. The Proponent must prepare and implement a Noise Management Plan (NMP) prior to commencement of operation that covers all premises based activities and transport operations. The plan must:
  - a) be prepared in consultation with the **EPA** by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
  - b) be approved by the **Secretary** prior to the commencement of construction;
  - c) include a system that allows for periodic assessment of Best Management Practice (BMP) and Best Available Technology Economically Achievable (BATEA) that has the potential to minimise noise levels from the facility;
  - d) specify effective implementation of identified BMP and BATEA measures, where considered feasible and reasonable;
  - e) include a program for monitoring the noise impacts of the project including real time noise monitors to measure noise emissions during operation;
  - f) include measures to record and respond to complaints;
  - g) include measures for community consultation including site contact details;
  - h) include specifications and protocols for the installation and relocation of mobile noise barriers; and
  - i) describe mitigation measures that would be implemented in the event that a non-compliance is identified with the noise impact assessment criteria in this approval.

## **AIR QUALITY**

### **Dust**

19. All operations and activities occurring at the premises or on a haulage route must be carried out in a manner that will minimise emissions of dust.
20. Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

### **Odour**

21. The Proponent shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.

### **Greenhouse Gas**

22. The Proponent shall implement all reasonable and feasible measures to minimise:
  - a) greenhouse gas emissions;
  - b) energy use.
23. The Proponent shall prepare and implement a Greenhouse Gas Management Plan in consultation with the OEH and to the satisfaction of the **Secretary** prior to commencement of operations.

### **Air Quality Monitoring Plan**

24. The Proponent shall prepare and implement an Air Quality Monitoring Plan in consultation with the **EPA** and to the satisfaction of the **Secretary** prior to the commencement of operations.

## Meteorological Monitoring

25. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the latest version of Approved Methods for Sampling of Air Pollutants in New South Wales guideline.

## BIODIVERSITY CONSERVATION

### Biodiversity Offset Package

26. A biodiversity offset package must be implemented to the satisfaction of the **Secretary**. The package must generally conform to Biodiversity Offset Management Plan in the EA prepared by EA Systems (17 February 2010) and include:

- a) the offset areas mapped in the diagram at APPENDIX E;
- b) ongoing monitoring and review for effectiveness;
- c) security in perpetuity to the satisfaction of OEH.

### Conservation Management Plan

27. The Proponent shall prepare and implement a Conservation Management Plan. The plan must:

- a) be prepared in consultation with the **LLS** and OEH, by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
- b) be approved by **Secretary** prior to the commencement of construction;
- c) generally conform with the recommendations in the Flora and Fauna Assessment in the EA prepared by EA Systems (17 February 2010)
- d) include detailed specifications for the biodiversity offset package;
- e) specify minimum qualifications for any person involved in biodiversity management;
- f) specify a protocol for tree removal. The protocol must include:
  - a construction schedule showing progressive tree removal to the minimum extent necessary;
  - a prohibition on the use of loud or heavy machinery within 100m of the 2009 Little Eagle nest tree during breeding season (August to January);
  - tree tagging for significant trees that can be retained. Significant trees include:
    - individual stands of *Eucalyptus nicholii*;
    - hollow bearing or known habitat trees or stags;
    - individual stands within a critically endangered ecological community.
  - supervision of any tree removal by a suitably qualified person;
- g) specify Koala management for the site access;
- h) specify a protocol for isolated finds of Aboriginal artefacts;
- i) specify any necessary ongoing management measures.

## VISUAL AMENITY

### Landscaping

28. The proponent shall ensure landscaping and revegetation screens the operational parts of the landfill from Waterfall Way as much as practical and to the satisfaction of the **Secretary**. Any landscaping must be consistent with the Biodiversity Offset Package or Biodiversity Management Plan.

### Lighting

29. The Proponent shall ensure that the lighting associated with the project:

- a) complies with the latest version of AS 4282(INT) - *Control of Obtrusive Effects of Outdoor Lighting*; and
- b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

## Signage

30. The Proponent shall not install any advertising signs on site without the written approval of the **Secretary**.

## TRAFFIC AND TRANSPORT

### Access Road Work and Parking

31. Prior to the commencement of operation the Proponent shall carry out the following work to the satisfaction of the **Secretary**:

- a) construct an AUSTROADS modified BAR treatment to 100km/h standard at the site entrance on Waterfall Way generally in accordance with the diagram in APPENDIX D so through traffic can safely negotiate right-turning vehicles;
- b) construct an AUSTROADS BAL treatment at the site entrance on Waterfall Way;
- c) install warning signs and road markings in accordance with **RMS** requirements;
- d) provide an entry gate on the access road that is sufficiently distant from the site entry to allow the largest vehicle to stand clear of the public roadway while waiting to enter the site;
- e) construct a culvert over the affected drainage line/s to allow vehicular access to the landfill during a **1 in 20** year flood event.
- f) construct parking for staff in accordance with *AS 2890 Parking Facilities*.

*Note: Any work on Waterfall Way will require a Works Authorisation Deed from the **RMS**.*

### Transport Code of Conduct

32. The Proponent shall prepare and implement a Transport Code of Conduct for the project to the satisfaction of the **Secretary**. This code must:

- a) be prepared in consultation with the **RMS** by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
- b) be approved by the **Secretary** prior to the commencement of operation;
- c) describe the measures to be implemented to minimise the impacts of the Project on the local and regional road network, including traffic noise.

**SCHEDULE 5**  
**ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING**

**ENVIRONMENTAL MANAGEMENT**

**Construction Management Plan**

1. The Proponent shall prepare and implement a Construction Management Plan for the development to be carried out to the satisfaction of the **Secretary**. The Plan must be approved by the **Secretary** prior to the commencement of work.

**Landfill Environmental Management Plan**

2. The Proponent shall prepare and implement a Landfill Environmental Management Plan for the Project to the satisfaction of the **Secretary**. This plan must:
  - a) be prepared by a suitably qualified and experienced expert whose appointment has been endorsed by the **Secretary**;
  - b) **be prepared in consultation with the EPA and approved by the Secretary prior to commencement of operation**;
  - c) include detailed baseline data;
  - d) incorporate management plans and programs required by this approval **as modified**;
  - e) address the Benchmark Techniques in Appendix 1 of *Environmental Guidelines for Solid Waste Landfills (1996, Environment Protection Authority)* and the conditions of this approval;
  - f) describe:
    - statutory requirements (including any approval, licence or lease conditions);
    - any limits or performance criteria; and
    - specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Project or any management measures;
  - a) include a protocol for managing and reporting any:
    - incidents;
    - non-compliances with statutory requirements; and
    - exceedances of the relevant limits and/or performance measures / criteria; and
  - g) include a protocol to:
    - inform the local community and relevant agencies about the operation and environmental performance of the project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the project; and
    - respond to emergencies; and
  - h) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.
  - i) include a contingency plan to manage any unpredicted impacts and their consequences;
  - j) include a protocol for periodic review of the plan.
  - k) include a program to monitor and report on the impacts and environmental performance of the Project and the effectiveness of any management measures; and
  - l) include a program to investigate and implement ways to improve the environmental performance of the Project over time.

**Closure and Rehabilitation**

3. The Proponent shall prepare and implement a landfill closure and site rehabilitation plan. The plan must:

- a) be prepared in consultation with EPA by a suitably qualified and experienced expert whose appointment has been endorsed by the Secretary;
- b) be approved by the Secretary prior to the commencement of operation;
- c) describe the final landform generally in accordance with the final landform diagram in APPENDIX C;
- d) ensure the site including capped landfill cells are equivalent to Class 4 agricultural land under the Agricultural Land Suitability Classification guideline;
- e) include post-closure monitoring of ground and surface waters; and
- f) include post-closure monitoring of leachate.

#### Annual Review

4. One year after the commencement of operations, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - a) describe the operations that were carried out in the past year;
  - b) analyse the monitoring results and complaints records of the Project over the past year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - monitoring results of previous years; and
    - relevant predictions in the EA;
  - c) Corroboration of leachate and stormwater monitoring results with modelled conditions;
  - d) identify any trends in the monitoring data over the life of the Project; and
  - e) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; and
  - f) describe what measure will be implemented over the next year to improve the environmental performance of the Project.

#### Revision of Plans & Programs

##### 5. Within 3 months of:

- a) the submission of an annual review under condition 4 of SCHEDULE 5;
- b) the submission of an incident report under condition 6 of SCHEDULE 5;
- c) the submission of an independent environmental audit under condition 8 of SCHEDULE 5; or
- d) the approval of any modification to this consent,

**the Proponent shall review, and if necessary revise the plans and programs required under this approval to the satisfaction of the Secretary.**

*Note: This is to ensure the plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the Project.*

#### REPORTING

##### Incident

6. Upon detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall immediately (or as soon as practical thereafter) notify the Department and other relevant agencies of the exceedance/incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

##### Regular

7. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval, and to the satisfaction of the Secretary.



## INDEPENDENT ENVIRONMENTAL AUDIT

8. Within a year of the commencement of operations of the project, and every 3 years thereafter, unless the **Secretary** directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the **Secretary**;
  - b) include consultation with the relevant agencies;
  - c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL (including any plan or program required under these approvals);
  - d) review the adequacy of any plans or programs required under these approvals; and, if appropriate;
  - e) recommend measures or actions to improve the environmental performance of the project, and/or any plan or program required under these approvals.

*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the **Secretary**.*

9. Within 6 weeks of the completing of this audit, or as otherwise agreed by the **Secretary**, the Proponent shall submit a copy of the audit report to the **Secretary**, together with its response to any recommendations contained in the audit report.

## ACCESS TO INFORMATION

10. From the commencement of the construction of the project, the Proponent shall make the following information publicly available on its website as it is progressively required by the approval:
- a) a copy of all current statutory approvals;
  - b) a copy of the current plans and programs required under this approval;
  - c) a summary of the monitoring results of the Project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
  - d) a complaints register, which is to be updated on a monthly basis;
  - e) a copy of the Annual Reviews (over the last 5 years);
  - f) a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit; and
  - g) any other matter required by the **Secretary**.

**APPENDIX A**  
**REVISED STATEMENT OF COMMITMENTS**

Commitment
<p><b>General Commitments</b></p> <ol style="list-style-type: none"> <li>1. The Proponent will undertake the activities, the subject of the Project Approval in accordance with the general descriptions and details provided in this EA, including the mitigation and management measures identified in this EA</li> <li>2. The Proponent will gain all necessary approvals and permits supporting both construction and operation</li> <li>3. The Proponent will prepare and implement the following management plans for the project: <ul style="list-style-type: none"> <li>- A LEMP and associated sub-plans; and</li> <li>- A Biodiversity Offset Management Plan</li> </ul> </li> <li>4. The Proponent will ensure that the final design landfill footprint of the proposed landfill facility is determined in consideration of relevant environmental constraints with a view to minimising the potential impacts of the proposal</li> </ol>
<p><b>Landform and Soils</b></p> <ol style="list-style-type: none"> <li>5. The Proponent will implement an ESCP as part of the LEMP</li> </ol>
<p><b>Geology</b></p> <ol style="list-style-type: none"> <li>6. The Proponent will undertake investigations of the potential geological fault during construction and will then undertake further detailed assessment if evidence of a geological fault is encountered</li> </ol>
<p><b>Surface Water</b></p> <ol style="list-style-type: none"> <li>7. The Proponent will implement a WLMP as part of the LEMP</li> <li>8. The Proponent will adopt the Water Sensitive Urban Drainage (WSUD) principles in the design criteria for the control and treatment of drainage runoff</li> <li>9. The Proponent will ensure all leachate produced is monitored in accordance with the proposed landfill facility's licensing arrangements under the <i>POEO Act</i></li> <li>10. The Proponent will ensure that monitoring is undertaken as detailed in the Water Quality Monitoring Program and Management Plan</li> </ol>
<p><b>Groundwater</b></p> <ol style="list-style-type: none"> <li>11. The Proponent will implement a Leachate Management System as part of the LEMP and designed in accordance with the relevant <i>Landfill Guidelines Benchmark Techniques</i></li> <li>12. The Proponent will implement a WLMP</li> <li>13. The Proponent will ensure that monitoring is undertaken as detailed in the Water Quality Monitoring Program and Management Plan and in accordance with an EPL.</li> </ol>
<p><b>Air Quality</b></p> <ol style="list-style-type: none"> <li>14. The Proponent will ensure that air quality management practices identified in this EA will be included in the LEMP</li> </ol>
<p><b>Greenhouse Gas</b></p> <ol style="list-style-type: none"> <li>15. The Proponent will undertake a regular review of the viability of retro fitting the landfill with alternative landfill gas management techniques</li> </ol>
<p><b>Noise</b></p> <ol style="list-style-type: none"> <li>16. As part of the LEMP, the Proponent will prepare a CNMP in accordance with the relevant <i>DECCW Guidelines</i></li> </ol>

Commitment
<p>Biodiversity Issues</p> <p>17. The Proponent will ensure that the LEMP contains appropriate measures to avoid or reduce secondary/downstream impacts on biodiversity. The LEMP will include the following management sub plans:</p> <ul style="list-style-type: none"> <li>- Native Fauna Management Plan</li> <li>- Fire Management Plan</li> <li>- Pest Management Plan</li> <li>- Disease Monitoring Protocol</li> </ul> <p>18. The Proponent will adhere to the mitigation measures identified in the Biodiversity Offset Management Plan</p>
<p>Socio-Economic</p> <p>19. The Proponent will undertake community consultation as identified in this EA</p>
<p>Indigenous Heritage</p> <p>20. The Proponent will prepare and implement an Indigenous Heritage Management Plan</p> <p>21. The Proponent will fence off and avoid significant Aboriginal heritage sites</p>
<p>National Environmental Heritage</p> <p>22. The Proponent will implement a WLMP to appropriately manage both surface water and leachate during the operational life of the landfill</p>
<p>Land Use</p> <p>23. The Proponent will <del>build a cattle grid into the access road</del> install a gate from Waterfall Way to the access road and install perimeter stock fencing around the site to exclude cattle</p> <p>24. The Proponent will ensure grazing stock do not enter the landfill area</p>
<p>Traffic and Transport</p> <p>25. The Proponent will upgrade the T-junction intersection on Waterfall Way</p>
<p>Hazards</p> <p>26. The Proponent will ensure relevant Materials Safety Data Sheets, spill containment and safety equipment is installed at the proposed landfill facility</p> <p>27. The Proponent will ensure the proposed landfill facility is fenced to prevent vandalism</p> <p>28. The Proponent will monitor landfill gas accumulation</p> <p>29. The Proponent will prepare and implement an ERP for fire protection, flood hazards, and OH&amp;S practices</p>
<p>Visual</p> <p>30. The Proponent will provide vegetation screening of the landfill facility using plantings of species endemic to the local area</p> <p>31. The Proponent will maintain all vegetation outside the landfill footprint but within the boundaries of the Project Site for the life of the landfill</p>
<p>Climate Change</p> <p>32. The Proponent will allow a freeboard in the design of the landfill dry basin (that captures overflows from the leachate pond and sedimentation basin) to capture the 100 year storm event</p> <p>33. The Proponent will implement and adhere to the mitigation measures identified in the Biodiversity Offset Management Plan</p>

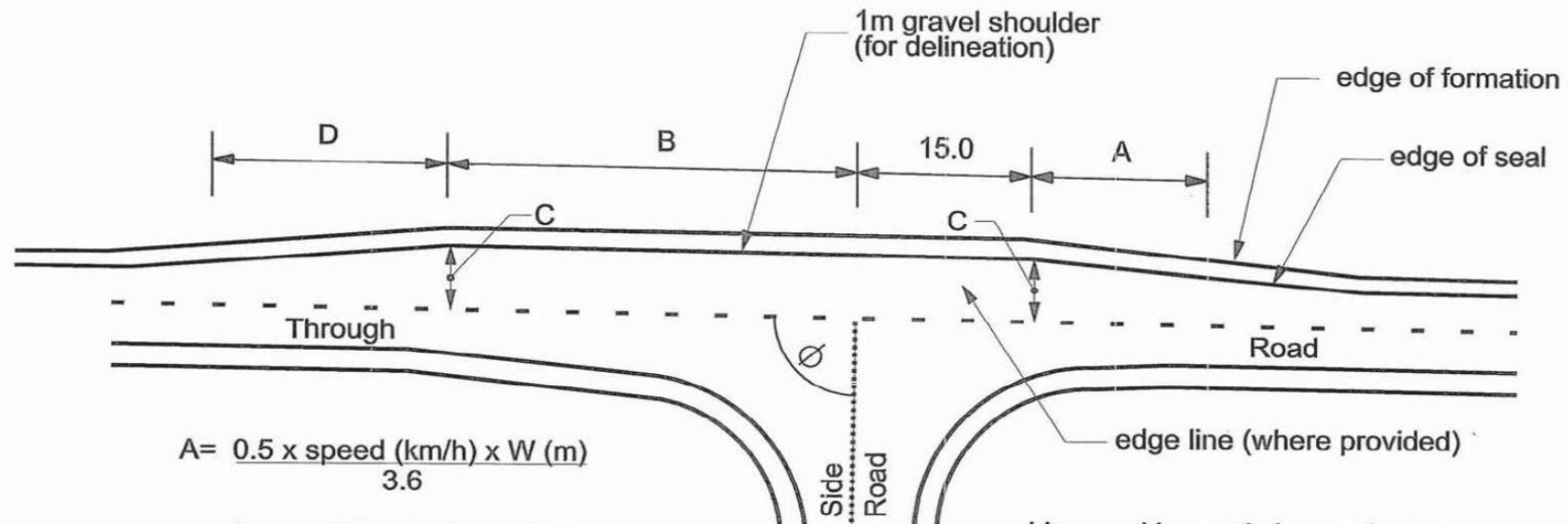
## APPENDIX B: LAYOUT OF THE PROJECT SITE







**APPENDIX D  
INDICATIVE JUNCTION DESIGN**



$$A = \frac{0.5 \times \text{speed (km/h)} \times W \text{ (m)}}{3.6}$$

B=	Ø	70°	90°	110°
	Length (m)	40	35	30

C= on straight - 6.0m min.  
on curve -  $2 \times (3.0 + \text{corresponding widening for curve radius})$  m min.  
refer Section 2 - Table 2.2.2

$$D = \frac{1.0 \times \text{speed (km/h)} \times W \text{ (m)}}{3.6}$$

## Modified 'BAR' Right-Turn Treatment

SCALES NOT TO SCALE		RTA PROVIDED BY PROJECT DESIGN TECHNICAL SERVICES RITA OPERATIONS	ROADS AND TRAFFIC AUTHORITY OF NSW MODEL DRAWINGS MODIFIED 'BAR' RIGHT-TURN TREATMENT		FILE No. Standard Drawings.dgn	PRINTED DATE \$DATE\$	SHEET No. MD
No. _____ Amendment Description _____ Initials _____ Date _____		DESIGNED: _____ REVIEWED: _____		REGISTRATION NUMBER			
<small>All original. This sheet may be prepared using colour and may be incorporated if copied. Co-ordinate System: MGA Zone 58. Project Details: A.J.R.D.</small>							

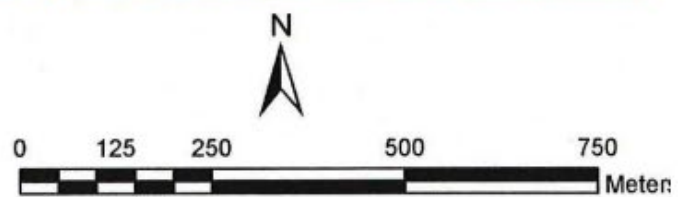


APPENDIX E  
BIODIVERSITY OFFSET DIAGRAM

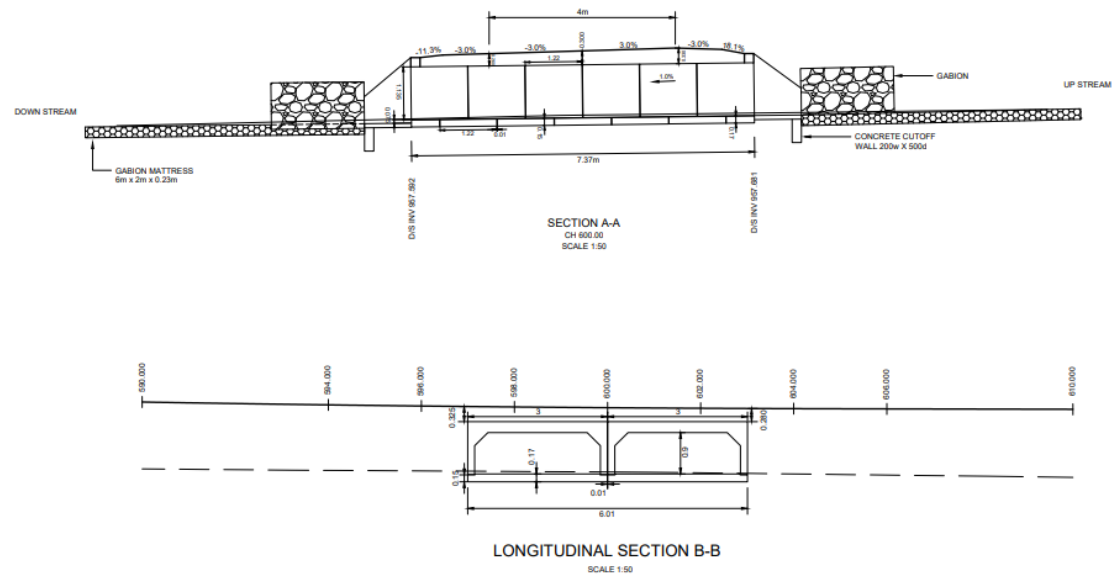
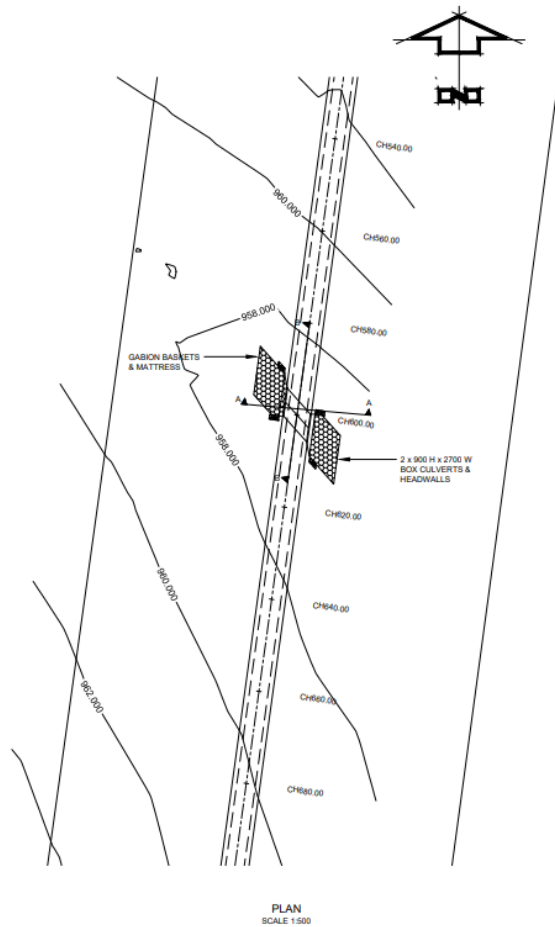


**Legend**

-  Stringybark Woodland Offset Area
-  Grassland Offset Area
-  Existing Grassland
-  Existing Sedgeland
-  Existing Stringybark Woodland
-  Proposed Landfill Boundary



# APPENDIX F COUNCIL PRELIMINARY CULVERT DESIGN



## DESIGN CRITERIA:

- CATCHMENT AREA = 0.71 km<sup>2</sup>
- DESIGN FOR 20 YEAR ARI
- NO OVERTOPPING
- PASSABLE IN 100 YEAR ARI

AMDT No	DESCRIPTION	DATE

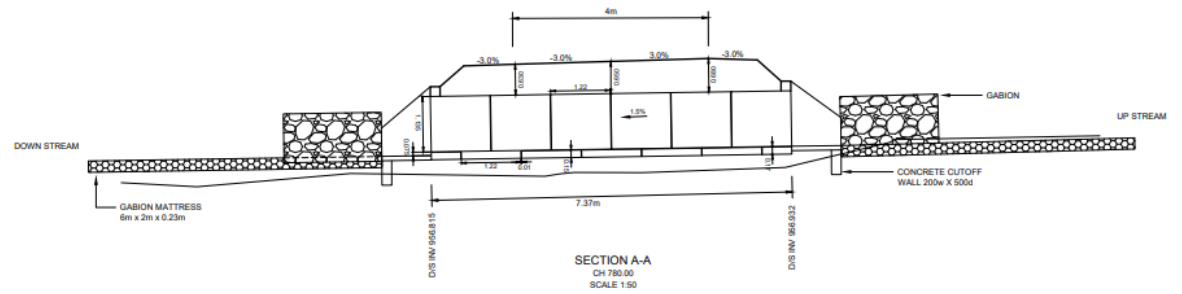
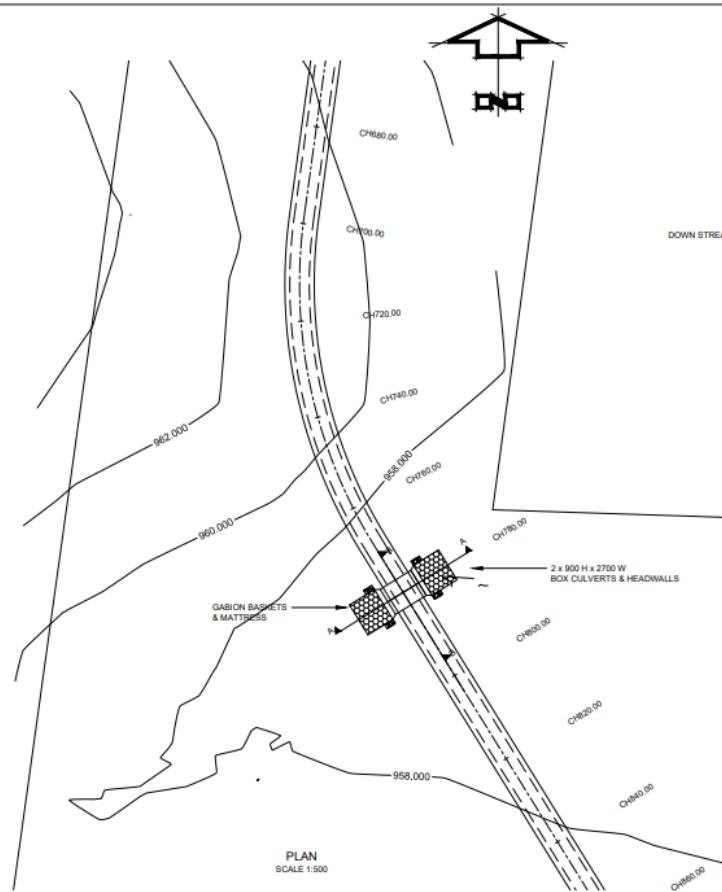
DATUM	GENERAL NOTES
BENCHMARK	

**Armidale**  
Dumaresq Council  
Department of Public Infrastructure  
City Administration Building, Ruston Street, Armidale N.S.W. 2350

FILE  
NEW ARMIDALE REGIONAL LANDFILL  
ACCESS ROAD  
CULVERT CROSS SECTION & DETAILS  
CH 600.00

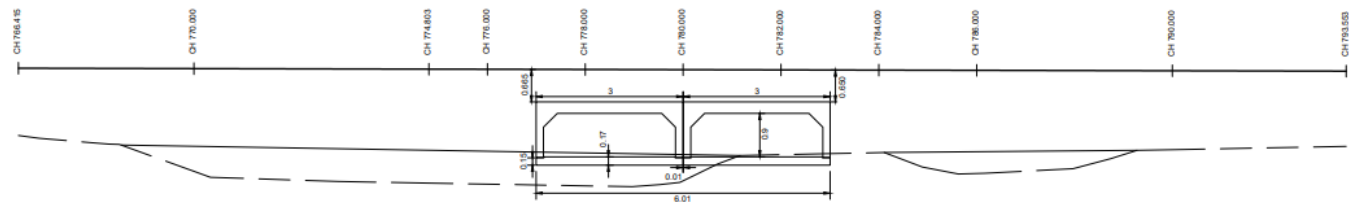
SCALES	AS SHOWN	SURVEY	H&H	AS SHEET	SHEET 1 OF 2	AMDT No
APPROVED		DRAWN	VC	A1	DRAWING No.	
DIRECTOR OF ENGINEERING		DESIGNED	VC	CADFILE	AREA No.	
DATE		CHECKED	M/W		230	





#### DESIGN CRITERIA:

- CATCHMENT AREA = 1.05 km<sup>2</sup>
- DESIGN FOR 20 YEAR ARI
- NO OVERTOPPING
- IMPASSABLE IN 100 YEAR ARI



LONGITUDINAL SECTION B-B

SCALE 1:50

AMDT No	DESCRIPTION	DATE

DATUM	GENERAL NOTES
BENCHMARK	

**Armidale**  
Dumaresq Council  
Department of Public Infrastructure  
Civil Administration Building, Rudefern Street, Armidale N.S.W. 2350

FILE  
NEW ARMIDALE REGIONAL LANDFILL  
ACCESS ROAD  
CULVERT CROSS SECTION & DETAILS  
CH 780.00

SCALES	AS SHOWN	SURVEY	H&H	AS SHEET SIZE	SHEET 2 OF 2	AMDT No
APPROVED		DRAWN	VC	A1	DRAWING No.	
DIRECTOR OF ENGINEERING		DESIGNED	VC	CADFILE	AREA No.	230
DATE		CHECKED	MW			