# Section 3

# Consultation and Issue Identification

# PREAMBLE

This section describes how the environmental issues assessed in the Environmental Impact Statement were identified and prioritised. In summary:

- i) a comprehensive list of all relevant environmental issues was assembled through consultation with the local community and local and State government agencies, completion of preliminary environmental studies and a review of relevant legislation, planning documents and environmental guidelines;
- ii) a review of the project design and local environment was undertaken to identify risk sources and potential environmental impacts for each environmental issue;
- iii) an analysis of **unmitigated** risk for each potential environmental impact was then completed with a risk rating assigned to each impact based on likelihood and consequence of occurrence; and
- iv) through a review of the allocated risk ratings and the frequency with which each issue was identified, the relative priority of each issue was determined, with this priority used to provide an order of assessment and breadth of coverage within Section 4.

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# 3.1 INTRODUCTION

To enable a comprehensive assessment of the Proposal, appropriate emphasis needs to be placed on those issues likely to be of greatest significance to the local environment, surrounding and nearby land owners and the wider community. In order to ensure this has occurred, a program of government agency consultation, preliminary environmental studies and literature review was undertaken to identify relevant environmental issues and potential impacts. This was followed by an analysis of the environmental risk posed by each potential impact in order to prioritise the assessment of the identified environmental issues within the *Environmental Impact Statement*.

# 3.2 ISSUE IDENTIFICATION

### 3.2.1 Introduction

Identification of environmental issues relevant to the development and operation of the Proposal involved a combination of consultation and background investigations and research. This included consultation with State and local government agencies (Section 3.2.2.1) and reference to relevant NSW government legislation and environmental guidelines (Section 3.2.3).

# 3.2.2 Consultation

During the preparation of the *Environmental Impact Statement* the following government agencies and organisations were consulted.

- NSW Department of Planning and Infrastructure.
- Environmental Protection Authority\*.
- Office of the Environment and Heritage.
- NSW Office of Water.
- Catchment and Lands.
- Livestock Health and Pest Authority\*.
- Department of Primary Industries- Agriculture.
- Catchment Management Authority- Central West.
- Bogan Shire Council\*.

Representatives of those government agencies identified with an asterisk (\*) attended the Planning Focus Meeting on 7 November 2012.

The Director-General's requirements (DGRs), including correspondence from the EPA, is presented in **Appendix 2** together with a tabulated record of where the DGRs and other government agency requirements have been addressed in the *Environmental Impact Statement*.



The DGRs, along with additional requirements from representatives OEH were provided to the Applicant on 12 November 2012, and EPA provided additional requirements on the 18 December 2012. The key issues, as identified by the DGRs, were as follows.

- Waste management.
- Soils and water.
- Air quality.
- Hazards and risks.
- Traffic and transport.

- Noise.
- Flora and fauna.
- Heritage.
- Pest, vermin and noxious weeds.
- Landform and visual amenity.

### 3.2.3 Review of Planning Issues and Environmental Guidelines

#### 3.2.3.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is relevant to the Proposal as the proposed landfilling activities require development consent under Part 4 of the Act.

### 3.2.3.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) defines a variety of activities including the criteria for which an Environmental Protection Licence from the Environmental Protection Agency (EPA) would be required.

An Environment Protection Licence will be required because the Proposal is a scheduled activity under Clause 39, Schedule 1 of the Act. No Environment Protection Licence is currently held for the existing facility.

The Applicant, as the operator of the Nyngan Waste and Resource Management Facility, would continue to be bound by the *Protection of the Environment Operations (Waste) Regulation 2005* prepared under the POEO Act which specifies requirements regarding reporting and volumetric surveys for waste facilities.

### 3.2.3.3 Threatened Species Conservation Act 1995

The *Threatened Species Conservation Act 1995* (TSC Act) is relevant to the Proposal as the ecological values of the Project Site will be determined through consideration of the likely occurrence of threatened species, populations and ecological communities listed under this Act.

The ecology assessment for the Proposal, and recommendations contained within it, has been prepared with due consideration of the objects of the TSC Act.

### 3.2.3.4 Waste Avoidance and Resource Recovery Act 2001

The Applicant is committed to moving towards the goals of the NSW *Waste Avoidance and Resource Recovery Strategy 2007* framework. The Applicant notes that given the location of the Bogan LGA, achieving the identified increase in resource recovery to 66% by 2014 through



reuse, recycling and reprocessing of recyclable materials is unlikely to be achievable within the existing or proposed facility. The Proposal includes a dedicated recycling program whereby selected recyclable materials received within the proposed waste management facility would be sorted and sent off-site for reuse, recycling and reprocessing, and would enable Council to increase the proportion of waste material diverted from landfill to the greatest extent possible.

## 3.2.3.5 State Environmental Planning Policies

#### 3.2.3.5.1 State Environmental Planning Policy (Rural Lands) 2008

*State Environmental Planning Policy (Rural Lands) 2008 (Rural Lands SEPP)* applies to Bogan LGA, however the land that would be affected by the Proposal has not been identified as State or Regionally significant agricultural land under Schedule 2 of the *Rural Lands SEPP*. As such this SEPP does not apply.

#### 3.2.3.5.2 State Environmental Planning Policy (Infrastructure) 2007

*State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) was introduced to facilitate the delivery of infrastructure across the State by improving regulatory certainty and efficiency.

The Infrastructure SEPP provides development controls for waste and resources management facilities as per Part 3, Division 23. Clause 123(1) stipulates the matters the consent authority must consider, as follows. **Table 3.1** indicates where these are addressed in the EIS.

#### 3.2.3.5.3 State Environmental Planning Policy No 33 – Hazardous and Offensive Development

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) requires development consent for *'hazardous or offensive development.'* The policy aims to ensure when determining whether a development is a *'hazardous or offensive industry'* that any measures proposed to be employed to reduce the impact of the development are taken into account.



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# Table 3.1Infrastructure SEPP Requirements

Requirement	Section Where Addressed
In determining a development application for development for the purpose of the construction, operation or maintenance of a landfill for the disposal of waste, including putrescible waste, the consent authority must take the following matters into consideration:	
a) whether there is a suitable level of recovery of waste, such as by using alternative waste treatment or the composting of food and garden waste, so that the amount of waste is minimised before it is placed in the landfill, and	2.6
b) whether the development:	2.3
i) adopts best practice landfill design and operation, and	
<ul> <li>ii) reduces the long term impacts of the disposal of waste, such as greenhouse gas emissions or the offsite impact of odours, by maximising landfill gas capture and energy recovery, and</li> </ul>	4.7.3
c) if the development relates to a new or expanded landfill:	4.1.3
iii) whether the land on which the development is located is degraded land such as a disused mine site, and	
<ul> <li>iv) whether the development is located so as to avoid land use conflicts, including whether it is consistent with any regional planning strategies or locational principles included in the publication <i>EIS Guideline: Landfilling</i> (Department of Planning, 1996), as in force from time to time, and</li> </ul>	4.1.3
<ul> <li>d) whether transport links to the landfill are optimised to reduce the environmental and social impacts associated with transporting waste to the landfill.</li> </ul>	4.10

### **Potentially Offensive Industry**

The document entitled *Applying SEPP 33 - Hazardous and Offensive Development Application Guidelines* (DoP (2011)) outlines the assessment criteria to determine whether a proposal constitutes a 'potentially offensive or potentially hazardous industry'. That document states.

"the key consideration in the assessment of a potentially offensive industry is that the consent authority is satisfied there are adequate safeguards to ensure emissions from a facility can be controlled to a level at which they are not significant. An important factor in making this judgement is the view of the DECCW (for those proposals requiring a pollution control licence under DECCW legislation). If the DECCW considers that its licence requirements can be met, then the proposal is not likely to be 'offensive industry'"....

"In some cases depending on surrounding land uses, and particularly for proposals which do not require a DECCW licence, consent authorities should also consider:

• Do any other authorities need to license the proposal? For example, for some proposals the Department of Health or the local water authority may be required to license emissions. Some pollution control approval may also be required under legislation or bylaws administered by council; and



- Can conditions be attached to further reduce the level of offence? Conditions which might be appropriate could include (depending upon circumstances):
  - restricting hours of operation; and
  - ensuring adequate separation distances to surrounding land uses.

If, after considering these matters, the consent authority considers that the level of offence will not be significant, then the proposal should not be refused for reasons due to offence."

Given the nature of the surrounding land use (Section 4.1.3), and that it is expected the Proposal will achieve compliance with the any conditions imposed, although the Proposal falls within the definition of a 'potentially offensive industry', it is unlikely to be an 'offensive industry'.

#### Potentially Hazardous Industry

SEPP 33 defines a potentially hazardous industry as

"a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality:

- a) to human health, life or property, or
- b) to the biophysical environment, and includes a hazardous industry and a hazardous storage establishment."

The hazardous substances and dangerous goods to be held or used within the Site are required to be identified and classified in accordance with the risk screening method contained within the document entitled *Applying SEPP 33 - Hazardous and Offensive Development Application Guidelines* (DoP (2011)). Hazardous materials are defined within the guideline as substances falling within the classification of the *Australian Code for Transportation of Dangerous Goods by Road and Rail* (Dangerous Goods Code).

As the Proposal would not involve the on-site storage of diesel fuel or other hazardous materials, SEPP 33 does not require these to be considered further.

Based on the risk screening method of *Applying SEPP 33* (DoP (2011)), the Proposal is not considered potentially hazardous under SEPP 33. As such, there is no requirement to undertake a Preliminary Hazard Analysis for the Proposal.

### 3.2.3.5.4 State Environmental Planning Policy No. 55 – Remediation of Land

*State Environmental Planning Policy No.* 55 – *Remediation of Land* (SEPP 55) requires the consent authority to consider whether land is contaminated prior to granting consent to any development. The consent authority must be satisfied that any necessary remediation is undertaken to an acceptable standard before use of the land is permitted.

Given that the area to be disturbed is virgin land and has been principally used for grazing only, the land is not contaminated and thus no remediation of the land would be required prior to its use.



The nominated land end use for the Site, namely grazing, would require land that is not contaminated, and the proposal design and the proposed rehabilitation activities would ensure this would be the case.

# 3.2.3.6 Local Planning Policies

The existing waste facility and the proposed extension lie within the Bogan LGA within an area zoned RU1 (Primary Production) in the *Bogan Local Environmental Plan 2011*. Landfilling activities are permissible with development consent within this zone.

### 3.2.3.7 Environmental Guidelines

The Director-General's Requirements require that in assessing the identified key assessment requirements, reference is made to one or more guideline documents. In addition, a number of the government agencies consulted in relation to the Proposal required reference to other environment guideline documents. Each of these guidelines was reviewed and addressed where appropriate in the *Environmental Impact Statement* or Specialist reports. Appendix 2 identifies the relevant guidelines and where each is addressed in this document.

# 3.3 ANALYSIS OF RISK AND ISSUE PRIORITISATION

### 3.3.1 Analysis of Risk

Risk is the chance of an unplanned or unanticipated event or impact occurring. Risk is measured in terms of consequence (severity) and likelihood (probability) of the event occurring. This sub-section presents a <u>brief</u> analysis of risk for relevant environmental issues associated with the Proposal and has generally been in accordance with *Australian Standards HB* 203:2006 and *AS/NZS* 4360:2004.

The allocation of a consequence rating was based on the definitions contained in **Table 3.2** and **Table 3.3**.

The risk associated with each environmental impact was assessed **without** the inclusion of any operational controls or safeguards in place and based on the qualitative assessment of consequence and likelihood, a risk ranking of either; low, medium, high or extreme was assigned to each potential impact based on the matrix of **Table 3.4**.

**Table 3.5** presents the identified potential impacts that may be associated with each environmental issue based on the source or risk or potential incident, potential consequences and local receptor/surrounding environment.

**Table 3.5** provides an assessment of the **unmitigated** risk for each potential environmental impact based on the classifications and definitions provided. Where appropriate, and to provide a more realistic assessment of the risks posed by the various environmental issues, the environmental impacts have been further defined using either a level, range or scale of impact providing for the various circumstances which may apply.



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Level	Descriptor	Description
E Catastron		<ul> <li>Massive and permanent detrimental impacts on the environment.</li> </ul>
		<ul> <li>Very large area of impact.</li> </ul>
	Catactrophic	Massive remediation costs.
5	Calastrophic	<ul> <li>Reportable to government agencies.</li> </ul>
		<ul> <li>Large fines and prosecution resulting in potential closure of operation.</li> </ul>
		Severe injuries or death.
		<ul> <li>Extensive and/or permanent detrimental impacts on the environment.</li> </ul>
		Large area of impact.
1	Major	<ul> <li>Very large remediation costs.</li> </ul>
-	iviajoi	<ul> <li>Reportable to government agencies.</li> </ul>
		<ul> <li>Possible prosecution and fine.</li> </ul>
		<ul> <li>Serious injuries requiring medical treatment.</li> </ul>
		• Substantial temporary or minor long term detrimental impact to the environment.
		Moderately large area of impact.
3	Moderate	Moderate remediation costs.
Ŭ	Moderate	<ul> <li>Reportable to government agencies.</li> </ul>
		<ul> <li>Further action may be requested by government agency.</li> </ul>
		Injuries requiring medical treatment.
		<ul> <li>Minor detrimental impact on the environment.</li> </ul>
		Affects a small area.
2	Minor	Minimal remediation costs.
_		<ul> <li>Reportable to internal management only.</li> </ul>
		No operational constraints posed.
		Minor injuries which would require basic first aid treatment.
		<ul> <li>Negligible and temporary detrimental impact on the environment.</li> </ul>
		Affects an isolated area.
1	Insignificant	No remediation costs.
	nieiginiean	<ul> <li>Reportable to internal management only.</li> </ul>
		<ul> <li>No operational constraints posed.</li> </ul>
		No injuries or health impacts.
Source:	Modified after H	IB 203:2006 - Table 4(B)

Table 3.2Qualitative Consequence Rating

Table 3.3Qualitative Likelihood Rating

Level	Descriptor	Description
А	Almost Certain	Is expected to occur in most circumstances.
В	Likely	Will probably occur in most circumstances.
С	Possible	Could occur.
D	Unlikely	Could occur but not expected.
E	Rare	Occurs only in exceptional circumstances.
Source: H	B 203:2006 - Table 4(	A)

#### Table 3.4 Risk Rating

	Consequences				
Likelihood	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (Almost Certain)	Н	Н	E	Е	E
B (Likely)	М	Н	н	E	E
C (Possible)	L	М	н	E	E
D (Unlikely)	L	L	М	Н	E
E (Rare)	L	L	М	Н	Н
Note: Rating modified after HB 203:2006 - Table 4(C)					

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Environmental Issue	Risk Source/Potential Incident(s)	Potential Consequences	Receptor/Surrounding Environment	Potential Environmental Impacts	
Groundwater	Pollution of groundwater due to leachate inflow.	Decreased groundwater quality	Seepage towards Bogan River.	• Reduced groundwater quality in the unlikely event leachate flows off site.	
	Pollution of groundwater due to hydrocarbon spills.	<ul> <li>Decreased groundwater quality.</li> </ul>	<ul> <li>Seepage towards Bogan River.</li> </ul>	<ul> <li>Reduced groundwater quality in the unlikely event spillage reaches the groundwater.</li> </ul>	
	<ul> <li>Reduction of groundwater levels due to in-flows to existing/proposed extraction area(s).</li> </ul>	<ul> <li>Reduction in groundwater levels.</li> </ul>	Within close proximity to the Project Site.	<ul> <li>Reduced groundwater levels around the Project Site would have negligible impacts.</li> </ul>	
	Reduction of water quality due to saline groundwater.	Decrease in quality of surface water.	<ul> <li>Groundwater would be retained within the extraction areas and/or Project Site.</li> </ul>	<ul> <li>Negligible impacts envisaged if water is retained/used on site.</li> </ul>	
	Reduction in-flows to natural springs.	Reduction in groundwater levels.	Groundwater dependent     ecosystems, if present.	<ul> <li>Reduced viability of groundwater dependent ecosystems, if present.</li> </ul>	
Surface Water	Reduction in surface water     flows from the site.	Reduced flows to     downstream onvironmental	Downstream ecology.	Reduced natural surface     water flows resulting in	
		flows.	<ul> <li>Downstream agricultural lands.</li> </ul>	stress to native vegetation	
		<ul> <li>Decreased availability of water for downstream stock watering.</li> </ul>		and degradation of fauna habitats and/or reduced viability of grazing lands.	
	Discharge of dirty, saline or	Decreased water quality.	Local creeks and tributaries.	Reduced quality of	
	contaminated water.	Degradation of local waterways, soils and vegetation.	Surrounding soils and vegetation.	<ul> <li>Indirect impacts on soil quality and vegetation.</li> </ul>	

 Table 3.5

 Risk Sources and Potential Environmental Impacts



#### ENVIRONMENTAL IMPACT STATEMENT

#### **BOGAN SHIRE COUNCIL**

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Table3.5 (Cont'd)
<b>Risk Sources and Potential Environmental Impacts</b>

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Environmental Issue	Risk Source/Potential Incident(s)	Potential Consequences	Receptor/Surrounding Environment	Potential Environmental Impacts
Soil Erosion	<ul> <li>Erosive actions of wind and water.</li> <li>Suspension of sediments within runoff resulting from erosion of disturbed areas.</li> </ul>	<ul> <li>Loss of soil resources.</li> <li>Increased sedimentation within downstream creeks.</li> </ul>	Bogan River.	<ul> <li>Soil erosion.</li> <li>Increased sediment load in Bogan River.</li> </ul>
Threatened Flora and Fauna	Removal of native vegetation.	<ul> <li>Removal of habitat and disturbance to threatened species.</li> </ul>	Myall Endangered Ecological Community adjacent to Project Site.	<ul> <li>Clearing of threatened flora species or vegetation community.</li> <li>Loss of, or alteration to, threatened flora and fauna habitat.</li> </ul>
	• Disturbance to fauna and fauna habitat as a result of project operations, eg. noise, dust etc.	Reduction in biodiversity.	Grey-crowned Babblers     (listed under the TSC Act)     adjacent to the Project Site.	Reduced local and regional biodiversity.
Aboriginal Heritage	Disturbance or destruction of Aboriginal artefacts due to the Project.	"Destruction" of Aboriginal artefacts through salvage.	<ul><li>Local archaeological context.</li><li>Local Aboriginal community</li></ul>	<ul> <li>Impact on artefacts as a result of the Project.</li> </ul>
Noise	• Elevated noise levels resultant from the Project- related activities on the Project Site.	<ul><li>Reduced amenity of the local area.</li><li>Decreased land values.</li></ul>	Residences greater than 2km west and southwest of the Project Site.	<ul> <li>Increased noise levels associated with the activities on the Project Site causing annoyance, distractions, ie. amenity impacts.</li> </ul>

ENVIRONMENTAL IMPACT STATEMENT

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Table3.5 (Cont'd)
<b>Risk Sources and Potential Environmental Impacts</b>

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Environmental Issue	Risk Source/Potential Incident(s)	Potential Consequences	Receptor/Surrounding Environment	Potential Environmental Impacts
Air Pollution- Dust, Odour, Greenhouse Gases, other	Dust generation resulting from the proposed construction and waste placement (including wind erosion from stockpiles and disturbed surfaces).	<ul> <li>Increased deposited dust levels and suspended particulate matter concentration.</li> </ul>	Local air-shed.	Adverse health impacts (if PM10 levels are excessive).
	• Emissions from vehicles and earth-moving equipment.	<ul> <li>Increased greenhouse and other gas emissions.</li> </ul>	Local air-shed.	Increased contribution to the greenhouse effect.
Visual Amenity	Changes in visual characteristics of the Project Site	Altered visual outlook during the life of the Project.	Drivers on Canonba Road.	Decreased visual amenity.
		<ul> <li>Altered visual outlook following site closure.</li> </ul>		
Traffic and Transport	<ul> <li>Increased traffic levels due to delivering of wastes.</li> <li>Increased light vehicle levels.</li> </ul>	Increased heave and light	Canonba Road.	Increased traffic congestion.
		venicie movements.	Regional Road Network.	Elevated risk of accident/incident on local roads.
				Road pavement     deterioration.
Soil and Land Capability	Reduction in soil quality and availability (as a result of	Structural damage and reduced biological activity of	Project Site soils.	Insufficient soil quantities for rehabilitation.
	poor management practices).	Solis.		Reduced soil quality.
		<ul> <li>Erosion of stripped, stockpiled and replaced soils.</li> </ul>		Elevated erosion or erosion potential.
	Decreased land capability in final landform.	Reduced productivity of final agricultural land.	Project Site soils.	Decreased land and agricultural capability of the final landform.



#### ENVIRONMENTAL IMPACT STATEMENT

#### **BOGAN SHIRE COUNCIL**

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Table3.5 (Cont'd)
<b>Risk Sources and Potential Environmental Impacts</b>

Environmental Issue	Risk Source/Potential Incident(s)	Potential Consequences	Receptor/Surrounding Environment	Potential Environmental Impacts	
Rehabilitation and Final	<ul> <li>Modified final landform.</li> <li>Modified land uses on the</li> </ul>	Reduced visual amenity of the Project Site.	The Project Site.	Reduced amenity of the final landform.	
Landform	Project Site.	<ul> <li>Reduced agricultural capability of land on the Project Site.</li> </ul>		<ul> <li>Reduced availability of agricultural land.</li> </ul>	
Waste Management	<ul> <li>Production of contaminating or polluting materials, eg.</li> </ul>	Contamination of downstream surface waters.	The Project Site land and water resources.	Leachate contamination of surface water.	
	waste oils, general rubbish.	Contamination of groundwater.	Downstream land and water resources.	Leachate contamination of groundwater.	
		Reduced visual amenity.	Groundwater.	• Reduced amenity of Site due to poor rubbish, litter management.	
	<ul> <li>Odour generated by organic materials in delivered wastes.</li> </ul>	Release of odours.	<ul> <li>Residences greater than 2km west and southwest of the Project Site.</li> </ul>	Nuisance/amenity impacts     from odour.	
Land Contamination	<ul> <li>Presence of asbestos fragments in construction and demolition waste.</li> </ul>	<ul> <li>Fibres of asbestos are released.</li> </ul>	<ul> <li>Areas on and potentially surrounding the Project Site.</li> </ul>	Adverse health effects for personnel on site.	
Socio-Economic Impacts	<ul> <li>Alteration of social activities or employment due to employment generation and capital expenditure.</li> </ul>	<ul> <li>Reduced unemployment and increased local spending.</li> </ul>	<ul> <li>Local community and businesses.</li> </ul>	<ul> <li>Improved economic activity and related social impacts attributable to reduced unemployment.</li> </ul>	
	Perceived or real impacts on local amenity of neighbouring	Reduced property values.	<ul> <li>Residences greater than 2km west and southwest of</li> </ul>	<ul> <li>Reduced quality of life (actual or perceived).</li> </ul>	
	properties.		the Project Site.	Reduced property values.	
Source: Modified after	Source: Modified after template provided by HB203:2006 – Table 3.				

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**Table 3.6** provides an assessment of the unmitigated risk for each potential environmental impact based on the classifications and definitions provided. Where appropriate, and to provide a more realistic assessment of the risks posed by the various environmental issues, the environmental impacts have been further defined using either a level, range or scale of impact providing for the various circumstances which may apply.

	, ,		Pag	ge 1 of 4
Potential Environmental Impacts (see Table 3.1)	Level / Scale of Impact (if applicable)	Consequence of Occurrence if not Mitigated	Likelihood of Occurrence if not Mitigated	Unmitigated Risk Rating
	Groundwater			
Groundwater	Contamination requiring minor recovery works.	1	В	М
pollution by hydrocarbons or leachate.	Contamination requiring major recovery works.	2	В	н
Reduced ground	vater levels.	1	С	L
Reduced ground	vater quality.	2	С	М
Impacts on Grour	Impacts on Groundwater Dependent Ecosystems (if present)			М
	Surface Water and Drainage			
Reduced	Reduced productivity of downstream grazing lands.	2	D	L
natural surface water flows.	Stressing of downstream native vegetation due to restricted flows.	2	D	L
Reduced quality of downstream waters.	Isolated and minor event resulting in temporary degradation of water quality in local creeks and tributaries, eg. minor discharge of sediment-laden water	2	D	L
	Substantial discharge of sediment-laden water resulting in degradation of water quality in local creeks and tributaries	4	E	Н
	Soil Erosion			
Soil erosion.	Minor gully erosion of drainage lines, stockpiles or created slopes.	1	В	М
	Minor sheet or gully erosion of rehabilitated landform	1	С	L
	Major gully or sheet erosion formation	2	С	М
	Threatened Flora and Fauna	1		
Loss of, or	Removal of native vegetation / habitat.	1	А	Н
aiteration to, existing habitats.	Disturbance to native vegetation / habitat outside the areas nominated as part of the proposed activities.	1	D	L

Table 3.6 Analysis of Unmitigated Risk

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#### Table 3.6 (Cont'd) Analysis of Unmitigated Risk

		Page 2 of 4		
Potential Environmental Impacts (see Table 3.1)	Level / Scale of Impact (if applicable)	Consequence of Occurrence if not Mitigated	Likelihood of Occurrence if not Mitigated	Unmitigated Risk Rating
	Threatened Flora and Fauna (Cont'd)			<u> </u>
Direct adverse impact on threatened species.	Disturbance to Threatened flora, fauna or endangered communities.	2	С	М
	Disturbance leading to local population reduction.	3	D	М
Reduced	Local biodiversity.	2	D	L
biodiversity.	Regional biodiversity.	2	D	L
	Heritage			
Impact on unidentified sites and/or artefacts of Aboriginal cultural heritage3and without the permission of Aboriginal stakeholders or OEH3				н
Impact on uniden proposed activity	tified sites of European heritage as a result of the and without permission of the OEH.	1	D	L
	Noise		•	
Increased noise levels associated with	Occasional minor exceedance of noise criteria (1- 2dB(A))	1	E	L
	Regular minor exceedance of noise criteria (1-2dB(A))	2	E	L
the Project Site	Marginal exceedance of noise criteria (3-5dB(A))	2	E	L
causing annoyance, distractions, ie. amenity impacts.	Regular marginal exceedance of noise criteria (3- 5dB(A))	3	E	М
	Occasional major exceedance of noise criteria (>5dB(A))	2	E	L
	Regular major exceedance of noise criteria (>5dB(A))	3	E	М
	Air Quality		-	
Nuisance- deposited dust	Deposited dust levels attributable to the Project occasionally exceed the DECCW guideline (1-2x)	1	E	L
	Deposited dust levels attributable to the Project regularly exceed (for >5 months per year) the DECCW guideline	3	E	М
Health- PM <sub>10</sub>	PM10 levels attributable to the Project occasionally above the project goal at non-project related residences	2	E	L
	PM10 levels attributable to the Project regularly exceed (>5 times per year) the project goal at non- project related residences	3	E	М
Landfill Gas	Potential migration off site	2	С	М
Odour	Odour level exceeds 6OU	3	D	М
	Odour level exceeds 2OU	2	E	L



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#### Table 3.6 (Cont'd) Analysis of Unmitigated Risk

			Pa	ge 3 of 4		
Potential Environmental Impacts (see Table 3.1)	Level / Scale of Impact (if applicable)	Consequence of Occurrence if not Mitigated	Likelihood of Occurrence if not Mitigated	Unmitigated Risk Rating		
	Air Quality (Cont'd)			1		
Increased greenh	ouse gas emissions.	1	В	М		
Impacts on adjoining native vegetation	Significant adverse impact on adjoining native vegetation.	2	D	L		
	Visual Amenity					
Reduced	Periodic observations of earthmoving equipment.	2	С	М		
operational life.	Regular observations of earthmoving equipment.	3	D	М		
Reduced	Periodic visibility of operational activities.	1	С	L		
amenity of altered Site	Marginally identifiable change to the landscape created by final landform.	2	D	L		
landionn.	Highly identifiable change to the landscape created by final landform.	2	С	М		
	Traffic and Transport		1			
Increased traffic of	congestion.	1	D	L		
Road pavement of	leterioration.	2	С	М		
Elevated risk of	Minor accident – no injury	1	С	L		
accident/	Minor accident – minor injury	2	D	L		
roads.	Major accident – moderate injuries requiring hospitalisation	3	E	М		
	Severe accident – severe injuries or death injury	4	E	Н		
	Soil and Land Capability					
Insufficient soil qu	antities for rehabilitation.	2	D	L		
Reduced soil	Temporary disturbance to soil.	1	В	М		
quality.	Degradation of soil quality.	2	С	М		
Elevated erosion	or erosion potential.	2	С	М		
Decreased land a	nd agricultural capability of the final landform.	2	D	L		
	Rehabilitation and Final Landform		1			
Reduced amenity	of the final landform.	1	D	L		
Reduced availabi	lity of agricultural land.	2	С	М		
	Waste Management		ſ			
Reduced amenity of Site due to poor rubbish, litter management.		1	D	L		
Land Contamination						
Presence of contaminate material	Small area affected (<0.01ha).	1	С	L		
	Large area affected (>0.01ha).	2	D	L		



#### Table 3.6 (Cont'd) Analysis of Unmitigated Risk

		-	Pag	ge 4 of 4			
Potential Environmental Impacts (see Table 3.1)	Level / Scale of Impact (if applicable)	Consequence of Occurrence if not Mitigated	Likelihood of Occurrence if not Mitigated	Unmitigated Risk Rating			
Socio-Economic Impacts							
Reduced quality of life (actual or perceived).		3	Е	М			
Reduced property values.	Temporary decrease in property values.	1	Е	L			
	Moderate term decrease in property values.	2	Е	L			
	Long term decrease in property values.	3	Е	М			
Consequence of Occurrence: 1- Insignificant, 2= Minor, 3= Moderate, 4= Major, 5= Catastrophic							
Likelihood of Occurrence: A= Almost Certain, B= Likely, C= Possible, D= Unlikely, E= Rare							
Risk Rating: E= Extreme, H= High, M= Moderate, L= Low							

# 3.3.2 Environmental Issue Prioritisation

The issues identified as requiring assessment within the *Environmental Impact Statement* have been prioritised based upon the key assessment requirements within the DGRs and government agency requirements (see Section 3.2.2.2 and **Appendix 2**) and the issues identified and their frequency during the community consultation.

Based on the issues identified, the emphasis placed on each issue by the various government agencies and the risk ratings allocated to the potential environmental impacts of these, the following order of priority has been determined. This order of priority provides for the order of assessment throughout Section 4 namely:

- 1.Groundwater7.Air Quality
- 2. Surface Water 8. Noise
- 3. Flora and Fauna 9. Visual Amenity
- 4. Heritage 10. Waste Management
- 5. Traffic and Transport 11.
- 6. Soils and Land Capability

The sources of risk and potential environmental impacts associated with each issue are discussed within relevant subsections throughout Section 4.

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