

COUNCIL ASSESSMENT REPORT

Panel Reference	2017STH013
DA Number	242/2017
LGA	Cootamundra-Gundagai Regional Council
Proposed Development	Expansion of Existing Waste Disposal Facility
Street Address	303 Burra Road, Gundagai, NSW
Applicant/Owner	Martin Hay Earthmoving
Date of DA lodgement	26/04/2017
Number of Submissions	241
Recommendation	Refusal
Regional Development Criteria (Schedule 4A of the EP&A Act)	Clause 8 (c) Waste Management Facility that is Designated Development
List of all relevant s79C(1)(a) matters	- relevant environmental planning instruments <i>Gundagai Local Environmental Plan 2011;</i> <i>State Environmental Planning Policy (Infrastructure) 2007;</i> <i>State Environmental Planning Policy No. Remediation of Land;</i> <i>State Environmental Planning Policy No. 33 Hazardous and Offensive Development.</i> - proposed instrument that is or has been the subject of public consultation under the Act and that has been notified to the consent authority <i>Non relevant</i> - relevant development control plan <i>Non relevant</i> - relevant planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F <i>Non relevant</i> - coastal zone management plan <i>N/A to this application</i> - relevant regulations e.g. Regs 92, 93, 94, 94A, 288 <i>Divisions 1 & 3 of Part 6</i> <i>Schedule 2</i> <i>Schedule 3</i>
List all documents submitted with this report for the Panel's consideration	- Council Planning Report - Response from NSW Environment Protection Authority - Response from Department of Primary Industries – Water - Response from Office of Environment & Heritage - Response from Roads & Maritime Services - Response from NSW Food Authority - Applicant submission to EPA Response
Report prepared by	Brent Livermore
Report date	21/11/2017

Summary of s79C matters

Have all recommendations in relation to relevant s79C matters been summarised in the Executive Summary of the assessment report?

See Report

Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report?

See Report

e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?

Not Applicable

Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S94EF)?

Not Applicable

Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions

Conditions

Have draft conditions been provided to the applicant for comment?

Not Applicable

Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report

PLANNING ASSESSMENT REPORT – 2017STH013

DA 242/2017:	EXPANSION OF EXISTING WASTE DISPOSAL FACILITY
APPLICANT:	MH Earthmoving Pty Ltd.
SUBJECT LAND:	Lots 472 & 502 DP751421 and Lot 2 DP111917, 303 Burra Road, Gundagai.
LAND OWNER:	Paul Manns.
CONSENT AUTHORITY:	Cootamundra - Gundagai Regional Council.
ASSESSING OFFICER:	Brent Livermore – Contract Planning Officer.
DETERMINING AUTHORITY:	Southern Region Joint Planning Panel.

EXECUTIVE SUMMARY

An application to expand an existing Waste disposal facility was lodged with the Cootamundra - Gundagai Regional Council on 26 April 2017. The application is Designated and Integrated Development. The proposed development is for the expansion of a Waste Management Facility consisting of the following works:

- Increasing the rate of designated waste disposal from 40,000 to 60,000 tonnes per annum (t/pa);
- Establishing a new waste cell in three stages with a total design capacity of 486,000m³, or approximately 730,000 tonnes, including partial over-tipping of existing cells 1 & 2;
- Amendment of cells 1 & 2 final waste and capping levels;
- Diversion of an existing unnamed gully; and
- Other ancillary works as shown on the development plans accompanying the EIS and including the construction of an additional leachate storage dam, construction of access roads and access points for unloading waste into the cells.

Being Designated Development the application has been lodged with the Southern Region Joint Planning Panel (SRJPP) as the determination body for such a development, in accordance with Clause 8 (c) of Schedule 4A of the Environmental Planning and Assessment Act 1979 (the Act).

The assessment of the proposed development has been completed in accordance with Section 79C of the Act and Divisions 1 & 3 of Part 6 of the Environmental Planning and Assessment Regulation 2000 (the Regulation). The assessment took into account the information provided in an Environmental Impact Statement (EIS) accompanying the application, additional information and addendums, prepared by Salvestro Planning on behalf of the applicant.

The EIS was accompanied by various supporting documents prepared by sub-consultants to address environmental impacts that would be associated with the proposed development. Supplementary to the original documentation additional information was required to be provided by the EPA and DPI – Water to facilitate proper assessment of potential environmental impacts.

The assessment also included consideration of issues raised in public submissions received during and after the exhibition period as well as responses from government agencies. There were two

submission addendums provided following review of additional information provided at the request of agencies. Agency responses were received from:

- NSW Environment Protection Authority;
- NSW Department of Primary Industries-Water;
- NSW Office of Environment & Heritage; and
- NSW Roads & Maritime Services.

Following review of agency submissions the Applicant submitted a further response in relation to the EPA response requesting further discussions with the EPA on scientific points of difference. Advice was forwarded to the Applicant to clarify that these matters should be presented to the Panel at the Determination meeting, this being the appropriate process for consideration of these issues. A copy of the Applicant's response is provided at attachment 6 to this report.

Following consideration of all relevant matters with regard to potential environmental impacts, this assessment concludes that the proposal does not meet appropriate environmental outcomes with regard to conformity with adopted planning instruments, policies and guidelines.

The recommendation of this assessment report is therefore that the application be refused for the following reasons:

1. The proposed development does not meet the objectives of Clause 6.3 of the Gundagai Local Environmental Plan 2011 for Water Sensitivity, which are "to maintain the hydrological functions of riparian land, waterways and aquifers", with particular regard to groundwater aquifers;
2. The proposed development is inconsistent with the provisions of the EIS Guideline Landfilling Department of Urban Affairs and Planning September 1996, in relation to site selection procedures, which identifies the site as being fundamentally unsuitable for landfilling due to environmental constraints;
3. The case for feasible alternatives to the proposal has not been adequately assessed in the EIS as required by Clause 7(1)(c) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000, thereby failing to provide adequate justification for the construction of a landfill in the proposed site; and
4. The NSW EPA is unable to support the proposal or provide General Terms of Approval.

SITE DESCRIPTION

The development site is adjacent to and on the same land as an existing landfill that has been in operation since July 2013, which consists of the filling of an abandoned gravel quarry pit with ancillary access roads and truck unloading facility, leachate management systems and storage shed. The surrounding site area that is the subject of the current application consists of an intermittent gully to the east of the existing pit, being the location of the proposed new landfill cell, a natural ridgeline rising to the south of the pit, which is the site of the proposed gully diversion and a creek (Sprillbry Creek) running around the western side of the pit.

The land is generally cleared with historical use for grazing, with the exception of the area utilized by the former gravel pit and more recently as the landfill cells 1 & 2. Part of the subject land being Lot 472 DP751421 also contains an existing development that houses a honey extraction operation (Gundagai Bee Farms). More detailed descriptions of site geology are contained within the EIS documentation.

The site location is shown below in **Figure 1**, with the site being located approximately three kilometers to the west of the town of Gundagai.

Figure 2, shows the location of the proposed new waste cell in relation to the existing landfill cells and the location of the gully diversion.



Figure 1. Location of Development Site

Map source: SIX Maps



Figure 2. Shows existing cells 1 & 2, location of proposed cell 3 and gully diversion.

Map source SIX Maps

DESCRIPTION OF THE DEVELOPMENT PROPOSAL

The proposed development is for the expansion of an existing landfill facility involving the following:

- Increasing the rate of designated waste disposal from 40,000 to 60,000 tonnes per annum (t/pa);
- Establishing a new waste cell in three stages with a total design capacity of 486,000m³, or approximately 730,000 tonnes, including partial over-tipping of existing cells 1 & 2;
- Amendment of cells 1 & 2 final waste and capping levels;
- Diversion of an existing unnamed gully; and
- Other ancillary works as shown on the development plans accompanying the EIS and including the construction of an additional leachate storage dam, construction of access roads and access points for unloading waste into the cells.

Depending on time of commencement, construction of the proposed new cell would be undertaken while the existing cells 1 & 2 are reaching their final capacity and capping levels. This capping would

be later removed, in part, to allow the over-tipping of cells 1 & 2 as the volume of waste in the new cell 3 reaches the appropriate level to integrate the cells.

To facilitate the construction of the new waste cells it is proposed to divert an unnamed gully by excavating a new channel through the ridge at the southern side of the existing cells 1 & 2 and this diversion would then discharge into Sprillbury Creek to the western side of the existing landfill.

The EIS documentation has indicated that all of the required clay material for leachate barrier and capping works as well as drainage rock would be sourced on site, with some material for final capping to be obtained from borrow pit/s located on the subject land. This matter would only be confirmed once the creek diversion was completed and all of the excavated clay material was tested for conformity with required permeability grades.

Waste to be disposed of at the expanded facility would be the same material currently being landfilled, which consists of wastes generated from the recycling of cardboard and paper at the Visy Pulp Mill located at Tumut. The waste materials are made up of Paper Machine Rejects, which are the predominant waste stream and consist of materials including paper/pulp residues as well as plastics, metals and glass, being contaminants placed into the cardboard and paper recycling waste streams. Other waste materials consist of dregs and grits, fly ash and boiler sands.

All of the waste materials have been classified as General Solid Waste (Non-Putrescible) within the NSW EPA *Waste Classification Guidelines*, with the material known as dregs and grits having previously been approved by the EPA for use as daily cover material. While approved to be used for cover material the dregs and grits remain classified as waste and would form part of the 60,000 t/pa waste volume to be landfilled. Future use of these materials as cover would need to be determined by the EPA as part of any licencing conditions that may be issued for the proposal.

DETAILS OF THE ASSESSMENT PROCESS

Following is a precis of the assessment process.

- **Lodgement.** The application was lodged with Council on the 26 April 2017.
- **Public Exhibition.** The proposal was placed on public exhibition for a statutory period of thirty (30) days commencing from Thursday 4 May 2017 and further advertised on Monday 15 May 2017. The proposal was also exhibited on Council's website and uploaded to the Regional Planning Panel website. Notifications were also provided to adjoining landowners.
- **Consultation.** The proposal is Integrated Development and was forwarded to the relevant agencies including NSW Environment Protection Authority (EPA), NSW Office of Environment & Heritage, NSW Department of Primary Industries-Water (DPI-Water) & NSW Roads & Maritime Services (RMS). The consultation process included requests for additional information from both the EPA & DPI-Water and OEH.
- **Consideration.** The consideration of the proposal has been undertaken in accordance with Section 79C of the Environmental Planning and Assessment Act 1979.
- **Determination.** The determination of the proposal will be carried out by the Southern Region Joint Planning Panel due to the proposed development being a Waste Management Facility that is Designated Development, in accordance with Clause 8 (c) of Schedule 4A of the Environmental Planning and Assessment Act 1979.

Other agencies consulted include, the NSW Food Authority as a consequence of there being a food processing business located on the land. Also, in recognition that the waste stream is generated at a single source, the Visy Pulp and Paper Mill at Tumut, the assessment process has considered various issues relating to that industry with particular regard to the recent approval for an increase in the production capacity of the Visy plant and the subsequent increase in the relevant waste stream, with this being an issue raised in submissions on the proposal.

The assessment has been undertaken considering all the documentation provided by the applicant, inclusive of the additional information requested and with reference to public submissions received during and following the public exhibition period, including submission addendums provided, and agency responses received following consultation in accordance with the matters for consideration as described in Section 79C of the Environmental Planning and Assessment Act 1979.

The assessment process has been further informed by the content of the Secretary's Environmental Assessment Requirements (SEAR) for the proposal. A copy of the SEAR 1076 is provided in the EIS documentation as Attachment 1.

During review of the documentation it was noted that the description of the development in the SEAR with regard to total tonnage (500,000) was inconsistent with the proposed new waste cell tonnage figure in the EIS (730,000). This matter was referred to the Industry Assessment section of the Department of Planning and Environment and subsequently the applicant was required to provide a revised SEAR application to accurately reflect the proposed application. It was determined by all relevant agencies as part of this process that the original requirements of the SEAR were still applicable and did not require any additional matters to be addressed.

SECTION 79C CONSIDERATIONS

Section 79C of the Environmental Planning and Assessment Act 1979 identifies those matters that are to be considered by a consent authority when determining a development application. The following sections of this report addresses Section 79C considerations in accordance with the Act and in this particular application, being for Designated Development, the assessment must include those matters identified in the Secretary's Environmental Assessment Requirements (SEARs) for the proposal.

79C (a) (i) Environmental Planning Instruments

Gundagai Local Environmental Plan 2011
State Environmental Planning Policy (Infrastructure) 2007
State Environmental Planning Policy No.55 Remediation of Land
State Environmental Planning Policy No. 33 Hazardous and Offensive Development

Gundagai Local Environmental Plan 2011

*Comment: The provisions of the Gundagai Local Environmental Plan 2011 (LEP) apply to this application. The subject site is located within the **RU1 Primary Production Zone** and the proposed development being a 'waste management facility' as defined in the LEP, is a use that is permissible with consent.*

RU1 Primary Production Zone Objectives.

- **To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.**

Comment: The proposed activity is not a primary industry and The natural resource base however does include both surface and groundwater systems and it has been concluded in this assessment that the proposed development will neither maintain or enhance those systems and as such the proposal would be considered to be inconsistent with this objective.

- **To encourage diversity in primary industry enterprises and systems appropriate for the area.**

Comment: The proposal is not a primary industry and therefore not directly applicable to this objective.

- **To minimise the fragmentation and alienation of resource lands.**

Comment: The proposal does not fragment or alienate resource lands. The activity would be undertaken on existing lots and would not compromise any access to other surrounding lands.

- **To minimise conflict between land uses within this zone and land uses within adjoining zones.**

Comment: The proposal may not be fully consistent with this objective, subject to the degree and success of mitigation measures put in place to protect the amenity of adjoining land uses. The proposed development and adjoining land uses are within the same zone (RU1 Primary Production), however the development may create land use conflicts within that zone in cases where there are impacts on the amenity of residential uses, and or impacts on environmental parameters such as water quality. Other potential conflict issues are in relation to dust, odour, noise and traffic impacts. Further discussion in relation to these impacts is provided later in this report.

- **To encourage the efficient use and conservation of water resources.**

Comment: Water use by the proposed development is relatively minimal in terms of volume. Landfill cells are generally considered a "closed system" whereby water captured on the cell is directed to a leachate storage system. This water may then be used to recycle back over the waste cell to control dust. This recycling process is also part of the leachate management process by way of increasing the evaporation rate of the liquid.

Dust control on areas that are not part of the leachate capture system would need to be carried out with water from a clean source, which may include a farm dam or some other similar uncontaminated supply.

Conservation of water resources is an issue relative to the proposed development in that it involves the diversion of an intermittent water course as well as a waste cell being placed over a groundwater aquifer. These issues have been addressed more fully in other parts of this report dealing with site suitability and responses to submissions, as well as the EPA response to the proposal. As a result, It is considered that the proposed development is not consistent with this objective in the context of conservation of water resources.

- **To protect significant scenic landscapes.**

Comment: The site of the development is not within a documented significant scenic landscape. The proposed development would create a change in the visual appearance of the land, in that the northern wall of the proposed cell 3, constructed as part of stage 1, would rise to approximately 292m AHD to be relatively consistent in height with the northern wall of the existing landfill. When completed with the final capping layers in place, the overall height is to be at 300 m AHD. The top surface will be graded to assist drainage of stormwater. The final capping form of the existing cells 1 & 2 will be a domed shape rising to 306 m AHD and the new cell 3 will be placed over the lower levels of cells 1 & 2 to blend in at 300 m AHD.

The proposed gully diversion will create a significant change in landform, however this would not be a predominant visual feature from any public place.

The landscape will therefore be considerably altered, however the final landform would not necessarily be inconsistent with that of the surrounding area, which is predominantly a landform of rolling hills and gullies. As such it is not considered that the proposal is inconsistent with this objective.

- **To encourage development that does not adversely impact nearby agricultural activities.**

Comment: Potential impacts to nearby agricultural activities largely relate to impacts on water quality, with both surface and groundwater supplies downstream of the development being used for stock watering purposes, which is an agricultural activity. The assessment of these potential impacts is addressed in other parts of this report. Other impacts on agricultural activities would not be considered to be inconsistent with the objective.

- **To protect, enhance and conserve the natural environment, including native vegetation, wetlands and wildlife habitat.**

Comment: The proposal will have potential impacts on the natural environment, with the most likely of these being to water quality of both ground and surface water systems. The impacts on these have been addressed in other sections of this report and discussed in the response from the EPA.

Impacts on native vegetation and wildlife habitat are likely to be minimal due to the past history of the site being cleared grazing land of a relatively degraded nature. With regard to Flora & Fauna protection and enhancement, the Office of Environment & Heritage has no objection to the proposal in relation to this matter and have provided recommendations that would be included in conditions, if consent was given for the development. These conditions would primarily relate to protection of the riparian corridor and enhancing vegetation and habitat.

- **To ensure development prevents or mitigates land degradation.**

Comment: The proposed development is of a type that has the potential to increase land degradation above what has been previously approved. This in itself is not a reason to not proceed with such a development subject to there being a reasonable assurance that the mitigation measures set out in the proposal are sufficient to prevent or mitigate further land degradation. Such a proposal would also be dependent on having an appropriate

rehabilitation and monitoring plan accepted as part of any consent and or licencing conditions.

The proposal to carry out the diversion of the intermittent gully seeks justification on the basis that the works will enhance the riparian corridor of the gully upstream of the landfill cell 3, along the new course of the diversion and along Sprillbry Creek downstream of the confluence of the two streams. This may be the case subject to strict adherence to the requirements of the Office of Water in any controlled activity approval that it may issue and any subsequent conditions of consent that may be applied.

Use of the site for the purpose of a landfill will create contaminated land as defined in the Contaminated Land Management Act 1997 and in this regard the proposed development would not be fully consistent with this objective.

LEP Part 6 – Additional Local Provisions

Part 6 of the LEP contains additional local provisions identifying various matters that would be relevant to the assessment of this proposal including;

6.1 Biodiversity protection;

6.2 Land protection; and

6.3 Water protection.

6.1 Biodiversity protection.

(1) The objective of this clause is to maintain terrestrial and aquatic biodiversity, including the following:

- (a) protecting native fauna and flora,
- (b) protecting the ecological processes necessary for their continued existence,
- (c) encouraging the recovery of native fauna and flora and their habitats.

(2) This clause applies to land identified as "sensitive land" on the Natural Resources Sensitivity Biodiversity Map.

(3) Before determining a development application for development on land to which this clause applies, the consent authority must consider any adverse impact of the proposed development on the following:

- (a) native ecological communities,
- (b) the habitat of any threatened species, populations or ecological community,
- (c) regionally significant species of fauna and flora or habitat,
- (d) habitat elements providing connectivity.

(4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

- (a) the development is designed, sited and will be managed to avoid any adverse environmental impact, or
- (b) if that impact cannot be avoided—the development is designed, sited and will be managed to minimise that impact, or

(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

Comment: The subject site is mapped as Biodiversity sensitive on Map Sheet NRB_007. As a result of historical land use and activities including clearing and grazing, the land affected by the proposal is generally of a relatively degraded nature, however there is some evidence of native flora and fauna or habitat present. The proposal has been reviewed by the Office of Environment and Heritage and the response from that agency has provided several recommendations that would need to be incorporated into any consent for the development to minimise potential impacts and to assist in the maintenance and enhancement of habitat for native flora and fauna species.

It is noted that the Flora & Fauna Impact Assessment included in the EIS attachment # 24 concludes that the proposed development is unlikely to have a significant impact on any threatened species or EECs, under State (TSC Act) or Federal (EPBC Act) legislation.

6.2 Land protection

(1) The objective of this clause is to maintain soil resources and the diversity and stability of landscapes, including protecting the following:

- (a) land with steep slopes and shallow soils,
- (b) land subject to soil salinity,
- (c) land with high erosion potential soils,
- (d) land susceptible to other forms of land degradation,
- (e) landforms.

(2) This clause applies to land identified as “sensitive land” on the Natural Resources Sensitivity Land Map.

(3) Before determining a development application for development on land to which this clause applies, the consent authority must consider any adverse impact of the proposed development in relation to:

- (a) the geotechnical stability of the site, and
- (b) the probability of increased erosion or other land degradation processes.

(4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

- (a) the development is designed, sited and will be managed to avoid any adverse environmental impact, or
- (b) if that impact cannot be avoided—the development is designed, sited and will be managed to minimise that impact, or
- (c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

Comment: Part of the subject site is mapped as Land sensitive on Map Sheet NRL_007. Impacts on the subject land are well described and addressed in other parts of the assessment. The proposal includes significant excavation and earthworks to divert the intermittent gully currently located in the footprint

of the proposed new landfill cell and this activity would provide significant opportunity for erosion if not managed to appropriate standards.

The DPI-Water have been involved with the assessment of the gully diversion works and in the process of issuing General Terms of Approval for the project have stipulated a number of conditions relating to sediment and erosion control and maintenance of the riparian corridor.

Final landform is intended to mimic surrounding landforms and would be a condition of any approved closure plan.

6.3 Water protection

(1) The objective of this clause is to maintain the hydrological functions of riparian land, waterways and aquifers, including protecting the following:

- (a) water quality,
- (b) natural water flows,
- (c) the stability of the bed and banks of waterways,
- (d) groundwater systems.

(2) This clause applies to land identified as “sensitive land” on the Natural Resources Sensitivity Water Map.

(3) Before determining a development application for development on land to which this clause applies, the consent authority must consider any adverse impact from the proposed development on the following:

- (a) the water quality of receiving waters,
- (b) the natural flow regime,
- (c) the natural flow paths of waterways,
- (d) the stability of the bed, shore and banks of waterways,
- (e) the flows, capacity and quality of groundwater systems.

(4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

- (a) the development is designed, sited and will be managed to avoid any adverse environmental impact, or
- (b) if that impact cannot be avoided—the development is designed, sited and will be managed to minimise that impact, or
- (c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

Comment: The subject land is mapped as Water sensitive on Map Sheet NRW_007. Water protection is considered under two parameters for this application. Firstly, surface water is considered in relation to impacts associated with the diversion of the intermittent gully as well as the control of any possible run-off from the waste cell area. As identified above under land protection, the DPI-Water have considered the potential impacts of the gully diversion and have included relevant requirements in the General Terms of Approval for that activity.

Surface water collected from the area of the waste cells is to be confined within the leachate management system and prevented from entering the surrounding environment. The response from

the EPA has discussed issues in relation to leachate management, in particular in relation to the adequacy of the leachate management system to deal with anticipated volumes over the life of the proposal and subsequent reliance on transporting leachate off-site for disposal.

Stormwater from outside the waste cell areas must be controlled and directed to a specific water catchment system to allow adequate time for sediment to settle before discharge to the adjacent (Sprillbry) creek. These issues would be the subject of Stormwater and Erosion and Sediment Management Plans for the site if an approval was given.

The other main aspect for water protection is the protection of groundwater systems. It has been identified that there are groundwater aquifers under the proposed cell 3 location and this issue has been the subject of substantial investigation by the EPA and OEH to verify the depth, flow rates and quality of the aquifers and their vulnerability to pollution from the proposed activity.

The EIS documentation included a Hydrogeological, Hydrological & Land Assessment (HHLA) report examining the groundwater issues associated with the proposal. In this report at 12.2 it states that:

“The site is located within the Natural Resources Sensitivity Water Map by reference to Clause 6.3 of the Gundagai Local Environmental Plan (LEP) 2011 but as can be demonstrated from the assessment it is not applicable to the physical characteristics of the site and the coarse scale of the Mapping”.

The above statement would not be supported, as while the scale of the mapping is not precise to each parcel of land, it is intended to identify areas where water sensitivity must be considered and it has been acknowledged the development site is overlying a groundwater aquifer that is vulnerable to pollution. Further to the Water Sensitivity mapping in the LEP the site is also shown on the NSW Land & Water Conservation Groundwater Vulnerability Map (2001) as having a moderately high vulnerability to pollution.

Peer Review of the HHLA was undertaken by the Water Research Laboratory of the University of New South Wales in regard to hydrogeological and hydrological matters. The Peer Review provides some commentary and recommendations that would indicate that not enough factual data is currently available to make a definitive decision on the potential groundwater impacts of the proposal, by virtue of the fact that there is still uncertainty as to the causes of changes in groundwater at the P1 monitoring site.

The report indicates that further monitoring of groundwater bores should be undertaken to fully understand the levels of risk to the groundwater aquifer and this matter is discussed more fully in the EPA response at Attachment 1 to this report. The Peer Review also indicates that permeability decreases with distance from drainage lines and thereby indicating that permeability would be at the highest rate within the drainage lines increasing risk to groundwater systems in those locations.

In summary, it is considered that the proposed development would not be consistent with the objective of Clause 6.3, which is “to maintain the hydrological functions of riparian land, waterways and aquifers”.

State Environmental Planning Policy (Infrastructure) 2007

The proposed development is permissible with consent under the provisions of the Infrastructure SEPP. Clause 123 of the SEPP requires that:-

(1) 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) Treatment or the composting of food and garden waste, so that the amount of waste is minimised before it is placed in the landfill.

Comment: The proposed waste stream does not include putrescible material and as such there may be limited opportunity for alternate waste treatment methods as may be the case with a putrescible landfill. There is a concern that a substantial part of the proposed waste stream contains materials that may otherwise be recyclable, e.g. plastics, glass and metals. These materials are entering the cardboard and paper recycling system as contaminants and appear to only be separated once into the pulp production process.

This situation raises questions about the efficacy of the recycling process that allows such large volumes of "contaminants" into the system. There is no discussion provided or evidence to support the appropriateness of such volumes of landfill waste being produced.

(b) Whether the development:

(i) Adopts best practice landfill design and operation.

Comment: The proposed construction methods for the landfill appear to be substantially compliant with the current Environmental Guidelines: Solid Waste Landfills NSW EPA 2016. The engineering design of the landfill cells has been reviewed by the EPA and OEH. The EPA did seek clarification on the proposed final capping structure, as this was not consistent with the environmental assessment requirements originally outlined in the SEARs. This matter has subsequently been addressed in a revised capping detail.

There has been issues identified with the siting of the proposed waste cell with regards to conformity with the criteria for siting landfills under the Environmental Guidelines: Solid Waste Landfills NSW EPA 2016 and the EIS Landfilling Guidelines Department of Urban Affairs and Planning September 1996. The matter of siting has been addressed more fully under the section dealing with site suitability and below under (c) (ii).

(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.

Comment: The proposal does not include any system for the capture of methane. The EIS contained an air quality impact assessment and a greenhouse gas assessment. The conclusions of the odour modelling indicate that the accepted odour criteria will not be exceeded at any sensitive receptors, however there may be some exceedance of this criteria on un-occupied rural land adjacent to the facility and would not therefore result in odour nuisance. It is noted that the odour assessment has not taken account of the use of effluent being pumped or sprayed over the waste cell. In addition to this one submission addendum has also identified the issue of odour modelling not considering the stage of cell 3.2 receiving waste while cell 3.1 is not yet capped as being a more likely worst case scenario.

The greenhouse gas assessment concludes that the level of emissions are well below energy and emission thresholds and as such the viability or the need for a greenhouse gas collection system would be questionable. Given the volume and type of waste to be deposited this situation may be supported, however there should be ongoing monitoring for the detection of greenhouse gas emissions and a management plan should be in place in the event that methane gas emissions were detected. In addition, there may be opportunities arise in the life of the proposed development to reduce the amount of organic (paper) material forming part of the waste stream, which would reduce the potential for greenhouse gas emissions.

(c) If the development relates to a new or expanded landfill:

(i) Whether the land on which the development is located is degraded land such as a disused mine site

Comment: While the existing landfill development utilised an abandoned quarry (mine) the proposed expansion is predominantly located within the formation of an intermittent gully, with some over-tipping of the existing waste cells 1 & 2.

The gully the subject of the application could be considered to be in a degraded state as a result of its past use as grazing land. The gully shows significant evidence of erosion due to clearing of vegetation, its slope and historical grazing activities. The suitability of an intermittent gully for landfilling is discussed further below in (c) (ii).

A major component of the proposed development is the diversion of the gully, which will involve a significant amount of earthworks to cut through the natural ridgeline at the southern side of the existing and proposed landfill cells. While this area of the land has been used for grazing purposes and has endured significant vegetation clearing over time, the ridge would not be considered to be any more degraded than the bulk of the surrounding grazing land, other than the gully.

(ii) 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 *EIS Guideline: Landfilling* (Department of Planning, 1996), as in force from time to time.

Comment: The EIS submitted with the proposal has identified a number of regional strategies that may have some relevance to the proposed development. The development would generally meet many of the broad objectives of these regional strategies, which include the following:

REROC Regional Freight Transport Plan – June 2014 and Tumut-Hume Highway Corridor Strategy 2016 – RMS both deal with the implementation and utilisation of key regional transport routes. Among these the Snowy Mountains Highway and the Gocup Road are two main routes that would form part of the route for waste to be transported from the Visy site to the Burra Road site.

These transport routes would also be used if the waste was being transported to other sites identified in this report. Some of the alternate sites, while requiring some additional travel distances, have less reliance on local roads within residential areas than the Burra road site.

REROC Regional Waste Strategy July 2014 identifies many key components in the waste management cycle. While one of the themes of the strategy relates to investment in waste infrastructure, the examples given, such as the development of Community Recycling Centres (CRCs) and composting trials etc. are focused more on reducing the need for landfilling, rather than directing investment towards the construction of new landfills, which would be seen as a last resort scenario. On balance it should be noted that the REROC strategy, while identifying commercial and business interests as stakeholders, is primarily a strategy to be utilised by local government bodies within the REROC area.

Gundagai Community Strategic Plan 2012 - 2022 The Gundagai Shire Community Plan provides the long term vision and a set of desired outcomes for the Gundagai Shire, which the local community aspires to achieve. It is composed of five themes:

- Leadership • Community • Infrastructure • Environment • Economy

The most relevant of these would be in relation to economy, the potential for jobs and support for local business / service providers and environment, the need to safeguard against any detrimental impacts to the environment.

NSW Forest Industry Roadmap (2016) is an initiative of the NSW government and while it references proposed reviews of the Plantations and Reafforestation Act, which will possibly impact on regional plantation development, the roadmap document appears to largely deal with private native forestry, particularly in coastal forests. Therefore the synergies between this plan and the operation of the Burra Road landfill expansion proposal would be relatively minimal.

Riverina – Murray Regional Plan 2036 is a fairly recent plan developed by the NSW government and as the EIS details, this plan covers a broad range of fairly aspirational issues designed at enhancing the development of the Riverina-Murray region. While the key strategic directions provide a focus on such things as building resilient prosperous towns and communities, supporting economic growth and jobs creation, it also has a key emphasis on environmental protection.

While economic growth and jobs are certainly matters to consider they must be balanced with consideration of environmental protection. Direction 13 in the plan places a high priority on the protection of both surface and groundwater systems in order to ensure the long term sustainability of these resources.

Locational Principles. With regard to locational principles contained within the EIS Guideline: Landfilling DUAP 1996, this document provides at Table 1, a list of environmentally sensitive areas to be avoided. This list includes three criteria that are of relevance to this application.

1. Sites located in or within 40 metres of a permanent or intermittent waterbody;
2. In an area overlying an aquifer which contains drinking water quality groundwater which is vulnerable to pollution;
3. Sites within a floodway which may be subject to a washout during a major flood event.

In considering the application of the Guidelines, it is noted that in Part 4.4 dealing with environmentally sensitive areas, the guideline states that “on environmental grounds, areas in Table 1 should be excluded from further consideration from the outset”. To this end the proposal is not in accordance with the Guidelines. The issues of site location and suitability are discussed more fully below in the report under the Section 79C considerations.

In summary, the locational principles of site selection are designed to avoid or reduce many of the environmental problems in landfill proposals, and:

- Reduce the need for technically based environmental mitigation measures and ongoing management measures;
- Result in substantial savings in establishment and operation;
- Reduce levels of public concern and avoid potential delays in approval processes.

The current proposal is therefore relatively inconsistent with the guidelines due its need to adopt complex and expensive design and management techniques for the nature of the wastes to be

disposed, i.e. General Solid Waste (Non-Putrescible), as a result of the site not being consistent with the siting requirements of the EIS Guidelines.

(d) Whether transport links to the landfill are optimised to reduce the environmental and social impacts associated with transporting waste to the landfill.

Comment: Transport routes from the Visy mill at Tumut to the landfill site will predominantly utilise State roads and as such these roads are built to standards well within the requirements of the proposed transport vehicles. There would be use of local roads when the vehicles come off the Hume Highway at Gundagai, consisting of Sheridan Street, West Street and Punch Street (Burra Road). Further discussion is provided by the RMS at point 1 in the submissions table addressing transport issues.

State Environmental Planning Policy No.55 Remediation of Land

Comment: SEPP 55 is primarily aimed at managing the remediation of contaminated land. It also provides direction for the consideration of development applications in general that involve development being carried out on contaminated land. For the purpose of the proposal under consideration at this time, it is not specifically being carried out on contaminated land, with the exception of the proposed over tipping of cells 1 & 2, although it is associated with a development that has by its use created contaminated land.

In order for the intent of the SEPP to be recognized any development to create a waste facility or expansion of such needs to address in detail the proposed remediation activities that will be undertaken during operation and post closure of the facility. The matter of rehabilitation and remediation would be a matter to be addressed in conditions of any consent or licence issued for the proposal.

State Environmental Planning Policy No. 33 Hazardous and Offensive Development

SEPP 33 has provisions that identify development that may be classified as either 'potentially hazardous' or 'potentially offensive'. As a result of the definitions it is considered that the proposed development may be classified as potentially offensive as:-

potentially offensive industry means a development for the purposes of an 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 emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.

Clause 13 of the SEPP sets out the matters for consideration by consent authorities when determining an application to carry out development to which Part 3 of the SEPP applies. The consent authority must consider (in addition to any other matters specified in the Act or in an environmental planning instrument applying to the development):

(a) Current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development.

Comment: The relevant Guideline to this application is "Hazardous and Offensive Development Application Guidelines – Applying SEPP 33". These Guidelines predominantly relate to the consideration of SEPP 33, for potentially offensive development in this particular case. The Guideline identifies matters that should be considered by the consent authority when assessing potentially offensive development. Under the guidelines, a development may be considered not to be offensive if the EPA are satisfied that compliance with licence conditions, if issued, are enough to prevent the development causing offence.

(b) Whether any public authority should be consulted concerning any environmental and land use safety requirements with which the development should comply.

Comment: The proposed development is both Designated and Integrated development and as such other public authorities that have been included in the assessment process are; the NSW EPA and OEH, NSW DPI –Water and Roads and Maritime Services. Other public authorities contacted in regard to the proposal include NSW Food Authority.

(c) In the case of development for the purpose of a potentially hazardous industry—a preliminary hazard analysis prepared by or on behalf of the applicant, and

Comment: The proposal is not considered to be a potentially hazardous development.

(d) Any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application).

Comment: The issue of alternatives, including site options and site suitability is discussed more extensively in other sections of this report. In summary, it is considered that the site does not fully meet the criteria of relevant guidelines, in the case of site selection, and that the case for alternatives has not been adequately considered.

(e) Any likely future use of the land surrounding the development.

Comment: The likely future use on land surrounding the development is considered to remain unaltered in the short to medium term and as such consideration of impacts as outlined in this report is considered to be relevant to the site context with regard to likely future use.

79C (a) (ii) Any proposed Environmental Planning Instrument

Comment: There are no proposed environmental planning instruments that apply to the land.

79C (a) (iii) Development Control Plans

Comment: There are no development control plans applying to the land.

79C (a) (iia) Planning agreements or draft planning agreement under section 93F

Comment: No planning agreements have been entered into and no draft planning agreement has been offered to be entered into.

79C (a) (iv) The Regulations

Comment: Divisions 1 & 3 of Part 6 of the Regulation contain requirements for the lodgement and process for Integrated Development. Schedule 3 of the Regulation identifies the proposed development as Designated Development and as such the Regulation prescribes the process for public exhibition and advertising the proposal.

Schedule 2 of the Regulation also sets out the matters that must be addressed for consideration in the preparation of an EIS.

79C (a) (v) Coastal Zone Management Plan that apply to the land

Comment: This provision is not applicable to this application.

79C (b) The likely impacts of the development

Comment: The most likely impacts of the development have generally been identified and discussed in detail within other sections of this report dealing with responses to submissions. Likely impacts are listed below:

- *Groundwater pollution;*
- *Surface water impacts;*
- *Noise, both construction and operational, including traffic noise;*
- *Odours; and*
- *Dust, both construction and operational*

One issue not specifically raised in submissions and therefore not addressed in the submissions Table was the issue of potential for dust. Particulate (dust) modelling was however one of the issues covered in the Air Quality and Greenhouse Gas Impact Assessment accompanying the EIS at attachment # 22. The assessment concluded that there would be some exceedance of criteria for particulates, primarily during the construction activities and that cumulative dust monitoring suggests that there will be no exceedances of relevant NSW OEH guidelines at sensitive receptors during operational activities.

The assessment concludes that mitigation measures can be implemented to ensure that particulate emissions do not exceed the relevant criteria during the construction period. Mitigation measures may include such things as watering of exposed areas during high wind periods, use of water trucks on unsealed haul areas and limit dust generating activities during adverse wind conditions.

The EPA response with regard to the Air Quality Impact Assessment raised questions as to the completeness of the conclusions with regard to the control efficiencies for all emissions, particularly during the construction phase resulting in uncertainty about whether these impacts can be adequately prevented or managed.

79C (c) Suitability of the site for the development

Comment: The suitability of the site is a major issue with this proposal. Site suitability has been assessed in this report in consideration of the criteria identified in relevant planning documents such as "EIS Guideline Landfilling" Department of Urban Affairs and Planning (DUAP) September 1996, "Environmental Guidelines Solid Waste Landfills" NSW EPA Second edition 2016.

Both of these guidelines set out criteria that should be considered when selecting an appropriate site for the placement of landfills, with the EPA Guideline endorsing the site selection criteria identified in Table 1 of the DUAP Guidelines. These criteria may be broadly described as locational principles, which are also addressed above under the consideration of the provisions of the State Environmental Planning Policy (Infrastructure) 2007.

With regard to locational principles contained within the EIS Guideline: Landfilling DUAP 1996, this document provides, in its Table 1, a list of environmentally sensitive areas to be avoided. This list includes three criteria that are of relevance to this application.

- 1. Sites located in or within 40 metres of a permanent or intermittent waterbody;*
- 2. In an area overlying an aquifer which contains drinking water quality groundwater which is vulnerable to pollution;*
- 3. Sites within a floodway which may be subject to a washout during a major flood event.*

In considering the application of the Guidelines, it is noted that in Part 4.4 dealing with environmentally sensitive areas, the guideline states that "on environmental grounds, areas in Table 1 should be excluded from further consideration from the outset".

The EIS has generally disregarded the environmental sensitivity of the proposed site with particular regard to the potential impacts on groundwater aquifers and seeks to justify the site selection by using engineering design. It is considered however that the purpose of engineering design of landfills required by the relevant guidelines is not intended to be an alternative to appropriate site selection. Engineering design should be a secondary phase to site selection to ensure acceptable environmental performance of landfills placed in suitable locations, in recognition of the fact that engineering design alone will never be a complete guarantee for the prevention of pollution to the receiving environment of a landfill.

Criteria 1 - Sites located in or within 40 metres of a permanent or intermittent waterbody

With regard to criteria 1, the proposal is to construct the waste cell directly within the formation of an intermittent water body (gully). The proposal seeks to justify this by indicating that once the gully diversion is constructed the floor of the waste cell, downstream of the diversion, would no longer be considered to be an intermittent gully and as such the landfill would not be within 40 metres of a permanent or intermittent waterbody.

This would only be supported if the embankment forming the diversion is not considered to be part of the landfill. This would tend to create a circular argument as to whether or not the proposal meets the locational principles in relation to this criteria. However it could be reasonably argued that the cell wall containing the waste is in fact part of the landfill, just as the wall at the downstream end of the cell is an intrinsic part of the landfill and as such the "landfill" placement is not consistent with the guidelines. The proposal to divert the gully to facilitate a waste cell is at odds to the intent of the guidelines, which is to direct landfilling away from inappropriate sites on environmental protection grounds.

Criteria 2 – In an area overlying an aquifer which contains drinking water quality groundwater which is vulnerable to pollution;

With regard to criteria 2, the groundwater in the area is being used by local properties downstream of the proposed site primarily for stock supplies, however the ground water may be utilised for domestic use, including drinking. It should be noted that the ground water source is not being used for a public drinking water supply, however the guidelines do not specifically indicate that the supply would need to be for public purpose for consideration to be given and as such the proposal is inconsistent with this part of the

guidelines. In addition, the NSW Land & Water Conservation Groundwater Vulnerability Map (2001) indicates the area has a moderately high vulnerability to pollution.

It is noted here that the recommendations in the hydrogeological report dismiss this criteria on the basis that the groundwater is not of drinking water quality due to its inherent salinity. The Australian Drinking Water Guidelines (ADWG) do not provide either a health or aesthetic value for salinity per say. The ADWG does however provide criteria for Sodium and Total dissolved solids (TDS) and these criteria are the generally accepted measures for salinity with regard to drinking water supplies. It is noted here that no groundwater monitoring results were provided in the EIS from a number of off-site bores, downstream of the landfill.

With regard to Sodium the ADWG provides a criteria for aesthetic value only of 180 mg/l. The worst recorded reading for Sodium provided in the Hydrogeology report was 169 mg/l at P3 in July 2015, with the lowest reading of 23 mg/l at P1 in April 2014. These values are well within criteria for drinking water.

With regard to TDS the ADWG provides criteria for aesthetic value only of 600 mg/l, being good quality, 600-900 mg/l, being fair quality, 900-1200 mg/l, being poor quality and >1200 mg/l being unacceptable. The worst recording for TDS was 1700 mg/l at P1 in July 2016. This has risen to 1930 mg/l in July 2017. P1 had a reading of 246 mg/l in January 2014. This low reading was the lowest reading recorded in all of the monitoring bores, however most of the readings in the other bores were within the fair range, which indicates that in relation to the ADWG criteria the groundwater aquifer could have been regarded as drinking water quality, particularly prior to the existing landfill development.

The additional information provided in relation to the HHLA report at Table 2: Burra Road Landfill July 2017 water quality monitoring results (DM McMahon 2017b) indicates that the majority of groundwater samples examined are within the ADWG criteria for drinking water.

Criteria 3 – Sites within a floodway which may be subject to a washout during a major flood event.

With regard to criteria 3, flooding issues may be possible in extreme storm events. While the catchment for the unnamed gully is not a large area, approximately 75 ha, it consists of water shed areas with substantial slopes and as such water coming down the creek in major storm events may be moving at high velocities for short periods and as such embankments placed in the path of the creek for diversion purposes would be vulnerable to scouring. The engineered structures required to prevent this issue would need to be subject to appropriate assessment to ensure this parameter could be consistent with the guidelines, given that this is a red flag issue. It is noted that additional information provided in relation to the gully diversion was reviewed by DPI-Water and GTAs have been issued for the gully diversion works based on the specifications provided.

As referred to above in consideration of SEPP (Infrastructure) 2007, the locational principles are designed to prevent the need for such substantive and costly engineering works as are required for the proposed gully diversion and as such this aspect of the proposal does not accord with the intent of the landfilling guidelines.

The consideration of site suitability also takes into account the provisions of Part 6 of the LEP dealing with Additional Local Provisions, discussed previously at (a)(i) above. In summary, it is considered that the proposed site does not meet relevant guidelines and would be regarded as inappropriate for landfilling.

79C (d) Submissions made in accordance with the Act and Regulations

Submissions from agencies/public authorities

Consultation responses were received from the following agencies/public authorities:

- NSW Environment Protection Authority – response provided at Attachment 1.
- Department of Primary Industries – Water – response provided at Attachment 2.
- Office of Environment & Heritage – response provided at Attachment 3.
- Roads & Maritime Services – response provided at Attachment 4.
- NSW Food Authority – response provided at Attachment 5.

Public submissions

The development proposal was publicly advertised in accordance with s.79 of the Environmental Planning and Assessment Act 1979 for a period of thirty (30) days from the 4 May to the 5 June 2017. The proposal was advertised in the Gundagai Independent newspaper, Council's website, the Joint Regional Planning Panel's portal and a copy was forwarded to the Department of Planning and Environment for display at the Department's Sydney office. Notification was given to owners of land adjacent to the proposed development site and the statutory proposal notice was displayed at the entrance to the subject land.

A total of two hundred and forty one (241) public submissions were received, with three (3) of those being received following the close of the public exhibition period. Of the 241 submissions received, one hundred and eighty nine (189) were in support of the proposal and fifty two (52) were against.

All the matters identified in submissions have been considered as part of the assessment process and are summarised below in Table 1. Submissions were received from individuals and from groups representing community members and business organisations.

One submission against the proposal was accompanied by petitions with a total of approximately 645 signatures. It should be noted that this petition was a copy of a petition submitted for a previous application that was subsequently refused in 2016 and while it generally refers to the same issues of concern, the signatories have not actually responded to the current proposal under consideration.

Several submissions were received on pro-forma type documents for both those in support and against the proposal. The issues of concern set out in the submissions generally reflected the same range of issues be they in support or against the proposal. Some of the submissions made statements that indicated a lack of understanding of what the proposed development consisted of, however these submissions did not identify any issues that have not been addressed in the body of the report.

Following the requests for additional information, some submitters provided addendums to their original submissions. The matters generally raised in the addendum to submissions were in relation to issues already identified have been addressed in the below submissions Table 1. Or elsewhere in the report.

Table 1. Public Submissions

Issues Against	Response
1. Heavy vehicle use on Burra Road (Punch Street) Following is a list of the main issues raised in submissions in relation to traffic issues. - Noise affecting residents along the haul route. - Damage to the roads by the heavy vehicles. - Hazards caused by heavy vehicles at the narrow bridge in Punch Street.	The Burra Road (Punch Street) is a Council Local Road and is of a design consistent with use by heavy vehicles, other than B Double configurations as this road is not a gazetted B Double route. Trucks involved with the proposed waste facility are not the only heavy vehicles that use this road. There are other heavy vehicles associated with Council's waste disposal centre, Livestock transporters and other quarry operation vehicles and general freight operators that may use this road. The new development would be liable to pay contributions to Council under its Section 94 Plan for <i>Development Generating Heavy Vehicle Movements on Local Roads</i>. It is noted that the Noise Impact Assessment (NIA) has considered noise impacts on residences in Punch Street and indicates that the predicted noise levels in this location are in accordance with the NSW Road Noise Policy. The EPA response has provided some further comment on this matter with regard to the NIA not accounting for additional truck movements involved with the transporting of leachate from the site. Heavy vehicles will invariably cause a greater amount of wear and tear to road pavements and as such this is a relevant consideration. The heavy vehicle movements predicted for the proposed development will involve approximately 20 per day of the total traffic movements on Punch Street (Burra Road) and The proposed development will be subject to Council's Section 94 Contributions Plan for <i>Development generating heavy vehicle usage of local roads</i> and the payment of contributions to go towards road maintenance. As detailed in the above response concerning noise, the EIS has not accounted for truck movements involved with the off-site transporting of leachate. It would be assumed that the bulk of this transport of leachate from the site would occur mainly during wet periods when road pavements would be more susceptible to damage from heavy vehicles. The bridge in question is a one lane bridge with control of traffic by a give way sign for traffic heading east. This bridge is within a 50 klm speed limit and would be well known by drivers of heavy vehicles and local road users. This should not cause any abnormal safety concerns, subject to all drivers observing basic road rules.

Issues Against	Response
• Safety issues for pedestrians. • Safety issues at the intersection of the landfill access road. • Warning light system not always working. • Safety concerns for school buses. • Comment that the traffic data was misleading due to	This issue was raised particularly in regard to pedestrian movements of elderly people and school children. These issues are of relevance to any form of vehicle operations and as such no distinction can be raised between landfill trucks and any other heavy or light vehicles using the same roads. There were submissions that referred to some “near misses” at the intersection of Burra Road with the landfill access road, however no specific details were provided and as such no particular comment can be made. This matter has been raised on occasions and subsequently investigated by Council. Investigations have revealed that some people are under the impression that these lights should be activated when the trucks are entering and leaving the site. This is incorrect and the lights are only required to warn drivers travelling west that a truck is entering Burra Road i.e. when they are leaving the site. On occasions when the lights have not been operating automatically they have been operated manually by a person stationed at the lights. There have, however been confirmed occasions when the lights have not been operated and as such a better operational system would be warranted to remove human error. The operation of these lights is a matter that has been addressed in recommendations from RMS indicating that a fully automated system could be installed and this would be activated by any vehicle entering Burra Road, not just the landfill trucks. This type of system would be preferential as it does not rely on drivers to remember to operate the lights. Other safety concerns have been raised with regard to Punch Street being a School Bus route. The previous consent had required trucks not to use the road during School Bus times, however this raises some questions as to its validity as no other vehicles are restricted in this time. Also a submission received from the operator of a school bus has indicated that there has never been any safety concerns regarding the landfill trucks. Again, basic road rules apply and it is considered that given the number of trucks associated with the landfill (two) and their time of movement along with the length of school bus operating times, conflicts between the two would be minimal. For the purpose of this assessment it is considered that the traffic data, which was compiled by Council staff and traffic counting equipment, has given a reasonable assessment of heavy vehicles

Issues Against	Response
incorrect placement of the traffic counter.	movements along Punch Street for the period examined. In addition to this the anticipated truck movements are considered relatively low, particularly in the context of proposed hours of operation. Comments from RMS have been received and RMS do not object to the proposal on traffic grounds, however have provided the following comments and recommendations to be incorporated into a traffic management Plan as a condition of consent if the application was approved. • measures to ensure heavy vehicles adhere to the designated haulage route; • measures to maximise the use of a low frequency (regular) trucking schedule rather than an intermittently-high frequency (campaign) trucking schedule; • plans to address poor visibility due to adverse weather e.g. heavy rain periods, fog, etc. along the haulage route; • contingency plans to address disruptions to haulage or closure of the haulage route; • measures to ensure that all loaded vehicles are covered and are cleaned of materials that may fall onto public roads; • details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site; • measures to be employed to limit disruption to other motorists, emergency vehicles and school bus timetables; • a Driver Code of Conduct to address such items as: appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc. and appropriate penalties for infringements of the Code; • the management of worker fatigue during trips to and from the site; • appropriate vehicle maintenance and safety; • procedures to provide for training, compliance with and enforcement of the plan. A traffic management plan would also need to address such issues as overnight parking of haul trucks to ensure that there are no movements of heavy vehicles at the site before or after the hours of operation set down for the facility.
2. Noise & Vibration impacts on the surrounding environment.	Submissions have raised concerns regarding noise and vibration impacts from construction and operational activities of the proposal. Noise & vibration impacts would generally be associated with two aspects of the operation. Firstly construction, followed by ongoing operation.

Issues Against	Response
	The EIS and additional information have provided reports on these criteria. With regard to noise, the modelling provided generally indicates that noise impacts would be within acceptable limits as prescribed by the EPA Industrial Noise Policy. Vibration impacts would primarily be associated with construction activities, including the potential for blasting during the gully diversion or cell construction earthworks. The vibration assessment report has concluded that vibration levels would be well within the accepted criteria with regard to the potential for damage to structures and human comfort levels. Consent conditions would be imposed on any approval to ensure that blasting operations, if required, are carried out in a manner that would maintain activities within the accepted vibration levels.
3. Odour	Some submissions have raised the issue of odour emanating from the facility. These concerns have also included odour from the trucks passing through the residential area. The Air Quality and Greenhouse Gas Impact Assessment deals with potential odours from the proposed development. While there would be some odour generation from the waste cell and the leachate pond, the only site identified as being impacted by odours in excess of guideline limits is the site of the Gundagai Bee Farms. It is noted that while the air quality assessment has identified worst case scenario activities as the basis of the odour modelling, it has not included an assessment of odour associated with the pumping / spraying of leachate over the waste cell as part of the leachate management regime. It is considered that this is a major flaw in the modelling as this activity would represent one of the most likely causes of increased or unacceptable odour from the development. One submission addendum has also identified the issue of odour modelling not considering the stage of cell 3.2 receiving waste while cell 3.1 is not yet capped as being a more likely worst case scenario.
4. Impacts on Community with regard to differing views.	Some submissions have identified that the proposal has caused some divisiveness within the community. This may be the case, however this would not be an unusual situation for such a development when opposing views are held. This will form part of the social and public interest considerations of the proposal.
5. Requests to have current operation capped and closed.	Some submissions made reference to the requirement to have the existing landfill capped and closed immediately. This is outside the scope of this assessment, which is not dealing with the existing operation. The closure of the existing facility is the subject of other processes and will be dealt with separately.

Issues Against	Response
6. Clay liner integrity – contamination of water	Some submissions indicate concerns that the clay liner will not protect the groundwater from contamination from leachate. The EIS has included design specifications for the clay liner (leachate barrier) proposed. While this design has generally followed accepted design standards, there is still risk that the lining system may be breached at some time in the future allowing leachate to contaminate groundwater. While the design of a lining system is important, it should not be a substitute for appropriate site selection, which is the first principle for the prevention of groundwater pollution. The EIS documentation has included a peer review of the hydrogeological and hydrology reports. This peer review raises some questions as to the validity of proceeding with the proposal, given that there is insufficient data at this time to make an informed decision as to the likely impacts on groundwater if it were to proceed. A further concern raised in one submission addendum is in reference to the proposed de-commissioning of the monitoring bore P1. This bore has indicated significant changes in groundwater quality since it was first installed. The HHLA report in the EIS has provided information to suggest that this the result of “mounding” following the installation of the leachate barrier in the quarry cells 1 & 2. The report also indicates that this bore will need to be de-commissioned and a new bore installed in a different location to allow for the construction of the new haul road to the proposed cell 3. The information indicates that this will need to be done in about 8 years. It is not clear as to how this fits into the construction schedule as the new road would need to be installed at the start of the project, given that the construction timeframe is detailed as being 60 business days over a 4 month period. In line with the recommendations in the peer review of the HHLA report it would appear to be a critical part of ongoing monitoring that P1 is maintained in its present position in order to properly assess groundwater changes over time. The EPA response at attachment 1 has also elaborated further on potential impacts to groundwater systems.
7. Over-tipping of cells 1 & 2	Concerns about cell design have been raised in connection with the proposal to over-tip the existing cells 1 & 2. This activity would not be an uncommon event where an extension to an existing landfill cell was being undertaken. One of the predominant issues to address with this would be the adequacy of the leachate collection system dealing with the exposed areas of cells 1 & 2 following partial removal of the capping layers.

Issues Against	Response
	This matter has been examined in detail by the EPA and forms part of the EPA response to the proposal at attachment 1.
8. Risks – ongoing responsibility	Some submissions raised the issue of future risks if something goes wrong and who will be responsible for remediation works if required, with a suggestion that the ratepayers may be left with the cost. The reality is that there will always be some level of risk with any development of this type. This highlights the importance of getting the assessment right as the purpose of this is to identify all possible risks and to ensure that if the proposal proceeds then any potential risks are within acceptable and manageable limits. The acceptance of any level of risk is underpinned by a clear understanding of the potential impacts if some part of the development was to fail, as well as having a reasonable expectation that appropriate mitigation measures could be undertaken in such cases. With regard to costs, EPA licencing for such a facility would include a requirement for monetary securities from the proponent/operator of the facility.
9. Health impacts	Some submissions raised concerns relating to health impacts. These were general comments and no specific medical evidence was provided. Most of the concerns seemed to be in relation to dust and odours emanating from the transport vehicles moving through the residential areas of town. There does not appear to be sufficient medical justification to make any further comment. Another health associated concern that has been raised is the food safety matter associated with the proximity to the Gundagai Bee Farms operation. Contact has been made with a representative of the NSW Food Authority to ascertain whether there is any particular issue of concern regarding food safety issues and that agency has reiterated the responsibility of a food processing business to protect food from contamination. Honey processing is considered to be a low risk activity and as such the premises would only be inspected as a response to specific complaints.
10. Flora & Fauna impacts	Some submissions have raised concerns about impacts on native flora and fauna. Given the nature of the site and its history of use for grazing purposes, it is considered that impacts on native flora and fauna would be minimal. The EIS has included a Flora & Fauna Impact Assessment at Attachment # 24. This report has identified a number of mitigation measures that may form part of conditions of consent to reduce any potential impacts. In addition to these, recommended

Issues Against	Response
	conditions for the protection of flora and fauna have been provided by the Office of Environment & Heritage to be included in any approval. Proposed works involving the gully diversion will also be subject to conditions and a Controlled Activity Approval by DPI-Water for the enhancement of the riparian corridor. These will include requirements for re-vegetation work.
11. Impacts on waterways and ecosystems.	Concerns were raised over the impacts on waterways from leakage (leachate). The potential for these impacts forms a substantial part of the overall development assessment process. The application has been accompanied by a number of monitoring and test results of ground water bores located within the subject site area as well there has been additional testing carried out both by the applicant and the EPA. This testing is primarily in relation to the performance of the existing site with regard to the integrity of leachate barriers. Other impacts on waterways may be the result of uncontrolled stormwater run-off and these impacts would need to be controlled by well managed systems, which would be a matter for consent and licencing conditions if consent was given for the proposal. One concern raised on this issue was in relation to NSW Land & Water Conservation Groundwater Vulnerability map (2001) (Map), which shows the site as “medium/high” (sic) with no justification in EIS for the site to be regarded as not vulnerable. The Map indicates the site to have a moderately high vulnerability to pollution. The EIS in the HHLA report provides discussion and arguments to present a case to show that the risks to the groundwater aquifer both on site and off site are not relevant due to a number of factors including flow regimes and engineered solutions. It is noted that the Map provides a commentary to indicate that it is a general indication and that it is not designed to replace proper site assessment. The EIS has not provided any groundwater test data for bores located on properties outside of the development area to substantiate any claims that groundwater impacts are not relevant.
12. Diversion of gully	Submissions have raised concerns regarding the gully diversion and possible impacts to water systems, flora & fauna and vibration issues. The diversion of the intermittent gully is a major component of the overall development and as such has been the subject of investigation and review. The expert reports on the gully diversion have been focussed primarily on that part of the proposal and have

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	been assessed independently from the creation of , or impact on the existing cells due to vibrations. Issues were raised about the diversion having the capacity to affect groundwater recharge areas. Whether or not this is a significant matter will be assessed by OEH/EPA in the overall assessment of groundwater impacts. NSW DPI-Water has issued General Terms of Approval for the gully diversion component of the project with conditions applied to ensure protection of the riparian corridor during and following the work.
13. Potential impacts on Aboriginal sites	Some submissions raised issues regarding impact on aboriginal sites. Any development that involves some form of land disturbance by excavation or other activities may potentially have an impact on Aboriginal sites. The site under assessment is a highly modified site due to its previous history of extensive clearing for grazing purposes followed by its part use as a gravel quarry. The EIS has provided documentation from the local aboriginal land council following their representatives carrying out a site inspection to determine if any Aboriginal sites could be identified. Further clarification on the extent of the site investigation was sought by OEH and although no sites were identified it would still be a condition of consent that any works being undertaken are done so with a view that if any artefact or site was uncovered, then work would cease to allow an appropriate assessment. The OEH has provided recommended conditions in relation to the protection of Aboriginal sites.
14. Potential for seismic actions	This issue has been addressed largely above at 2. Seismic actions may be the result of natural actions or may be caused by such things as blasting. One submission has raised the issue of fault lines running in a north south direction on either side of the proposed development site. The main impacts of these would be in relation to the integrity of the clay lining of the cell base. This will be part of the consideration of the proposal and the overall level of environmental risk it presents.
15. Precedents	The issue of precedents has been raised. Placing a landfill within 40 metres of a watercourse or in an area overlying a groundwater aquifer with water of drinking quality is generally inconsistent with adopted policies and guidelines and as such the approval for such a development may have the potential to set a precedent that could undermine the locational principles of determining suitable sites for landfill developments. The main guidelines applicable to the proposal include the EIS Guideline: Landfilling – DUAP 1996 and the EPA – Environmental

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	Guidelines Solid Waste Landfills 2016. Both of these Guidelines are consistent with regards to site selection criteria to make sure landfills are appropriately placed in locations that present the least risk of environmental harm. More detailed discussion on this issue is provided above in the section dealing with site suitability and under considerations of SEPP (Infrastructure) 2007. The potential precedent that could be set is that environmental guidelines, put in place to prevent landfilling in inappropriate locations, may be set aside without adequate justification.
16. Previous landforms	The ability to re-instate the site to previous landforms has been raised. The development proposal has provided a conceptual design of the final landform, including a superimposed aerial image. With the proposed waste cell (3) being placed in a gully it will not be possible to have a gully as the final landform, however it would be required that the final capped cell would mimic the general topography of the surrounding area being a mixture of gully lines and hill slopes.
17. Biosecurity risks	Biosecurity risks were raised in submissions and these were predominantly in relation to the close proximity of the Gundagai Bee Farms operation to the landfill site. A reference was made to the document -Ag facts – bee keeping near landfills. This document relates to the positioning of working bee hives in proximity to landfills, particularly putrescible waste landfills. The Gundagai Bee Farms operation is outside the scope of the Ag fact document as it is involved with the extraction of honey for processing and not the keeping of bees for honey production. No issues have been raised by other agencies in relation to this matter.
18. Public interest issues not addressed	The public interest considerations are addressed in more detail later in this report at (e) below in the final part of the Sect. 79C considerations.
19. Land Zoning	A submission raised the issue that a landfill is not Primary Production with the inference that the proposal is not within the correct land zone area. This matter is addressed previously in the report. While the land is zoned RU1 Primary Production under the Gundagai LEP, the activity of a “waste management facility”, which is a defined land use term, is permissible with consent.
20. Intimidation	Some submissions raised the issue of intimidation as a concern without specifically naming any party involved. This however is not a planning matter as such and would need to be dealt with by other jurisdictions if indeed people had concerns and or evidence of such. With regard to the assessment process people have had opportunity to make submissions and that has resulted in the identification of relevant issues that would be considered appropriate for such a development and subsequently addressed in this report. In addition,

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	as pointed out in 22 below, the determination process is safeguarded from the potential to be impacted by any form of intimidation.
21. Impact on property values	Some submissions have raised the issue of impact on or devaluation of property values. This is a relatively subjective statement and it is difficult to provide informed comment without some form of actual evidence, either by a qualified valuation or some direct example of a property sale not realising a fair market price directly as a result of its proximity to the existing or proposed development. In summary, this issue is difficult to quantify on a numerical basis, however it would be reasonable to concede that a property in close proximity to a landfill may become a less desirable proposition to any person intending to purchase land, particularly for residential / lifestyle purposes.
22. Conflicts of interest	Conflict of interest was raised as an issue, but appeared to be in regard to the original development consent for the existing landfill, which was approved at the local level. There was no specific evidence provided that would support this claim, however the current facility is not the matter being considered in this application. The current proposal will be determined by the Southern Region Joint Planning Panel and this removes the opportunity for such conflicts.
23. Current Licence breaches	A number of submissions raised the matter of breaches of the current licence. Any breaches of the current EPA licence are a matter for that agency and do not necessarily form part of the proposed development assessment. Certain of the alleged breaches of licence and /or consent conditions for the existing development have been to some extent the result of lack of clarity in certain of the operating requirements. These matters would be clarified more fully and completely in any new consent. It is important to note here again that the existing development is not the matter being determined at this time.
24. Mismanagement	Some accusations of mismanagement were identified in submissions, however these were again in regard to the existing facility which is not the subject of this assessment. In order to hold a pollution licence for the proposed development the proponent has to satisfy the suitable person criteria required by the EPA and this would include the proponent's ability to demonstrate capacity to fulfil all management obligations.
25. Environmental sensitivity LEP Cl. 6.1 & 6.3	Submissions have raised the issue of non-conformity with LEP clauses dealing with environmental sensitivity issues. These matters have been addressed previously in the report dealing with the provisions of the GLEP and suitability of the site for the development.
26. Leachate management	Some concerns were raised regarding leachate management and the adequacy of the proposed system. After review of the EIS the EPA required additional information regarding leachate management to