



Section 4.55(2) Modification -  
DA2019/143, Waste Disposal Facility  
Tumblong Reserve Road

APRIL 2026

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# 1. Introduction

## 1.1. Overview

The following modification report has been prepared by Habitat Planning on behalf of MHE Waste and is submitted to Cootamundra-Gundagai Regional Council in support of a Section 4.55(2) Development Application (DA) Modification of DA2019/143 for an Inert Landfill Waste Facility located at Tumblong Reserve Road, Tumblong. The proposal objectives include:

- **Increase in the annual waste disposal:** Allowance at Tumblong Landfill from 60,000 tonnes per annum to 99,000 tonnes per annum. No changes to the total volume of waste disposed at the premises or operational lifespan is proposed – the total capacity to remain as approved at 485,000 cubic metres over 10 years from the date of the first load of waste.
- **Provide increased surety to the Visy Pulp & Paper Mill:** The site is licensed to accept waste only from the Visy Pulp and Paper Mill in Tumut. The increase in waste disposal tonnage will allow the general solid non-putrescible waste to be disposed of locally, rather than to landfill further afield.
- **Enhance operational efficiency:** Increasing the allowable annual waste tonnage will ensure the landfill can streamline operations, improve space utilisation and reduce the frequency of site closures due to processing capacity constraints.
- **Support local and regional development:** Increasing the annual waste intake allowance will provide a stable waste management solution that supports local and regional development without expanding the landfill's overall approved capacity.

The proposal does not result in any additional construction works and remains substantially the same development with no changes to building footprint or proposed land use activities. The DA modification and this report have been prepared in accordance with the *Environmental Planning and Assessment Act 1979* ("EP&A Act") and the *Environmental Planning and Assessment Regulation 2021* ("EP&A Regs").

This report addresses the relevant heads of consideration listed under Section 4.15(1) of the EP&A Act and Section 4.55(2). It provides an assessment of the proposed development against the relevant Environmental Planning Instruments (EPIs) and other planning controls applicable to the site and to the proposal. It also describes the site, its environs, the proposed development, and provides an assessment of the environmental impacts and identifies the steps to be taken to protect or lessen the potential impacts on the environment.

## 1.2. Proponent

The proponent for the modification application is MHE Waste Pty Ltd. Ownership of the entity is currently being transferred from MH Earthmoving.

Part of the subject land is owned by Cootamundra-Gundagai Regional Council and the proponent has received landowner's authorisation which is attached as an accompanying document.

## 1.3. Pre-Lodgement Meeting

A pre-lodgement meeting was held with Cootamundra-Gundagai Council on 28 October 2024. The scope of the project has since been refined to ensure the project remains substantially the same development. A range of discussion points were raised for the modification to address including:

- Examination of leachate production and evaporation rates, particularly from the leachate dam, to assess life cycle impacts.
- Investigation of potential odour impacts.

- Detailed specification of types of waste to be accepted.
- Assessment of traffic impacts resulting from the increased landfill input.
- Early consultation with the EPA is recommended to address modification required for the current EPL.
- Acquire landowner consent in advance to facilitate arrangements for an independent external assessor to handle the Council's conflict of interest in the approval process.

A pre-lodgement meeting was conducted with the EPA on 9 April 2025. During this meeting, EPA recommended that the necessary pollution studies and reduction programs be addressed prior to any approval of expanding operational processing. A draft application package was submitted to the EPA on 12 September 2025 and their comments have been addressed accordingly.

A Leachate Management Plan was submitted to EPA on 15 July 2025 and Landfill Gas Management Plan was submitted to EPA on 14 August 2025. This modification report has been prepared in accordance with these reports and accompanying documents.

#### 1.4. Supporting Plans and Documentation

This application is accompanied by the following:

**Table 1 | Accompanying Documents**

| Ref. | Description                           | Prepared by                           |
|------|---------------------------------------|---------------------------------------|
| 1    | Landowner Authorisation               | Cootamundra-Gundagai Regional Council |
| 2    | Air Quality Impact Assessment         | Northstar                             |
| 3    | Noise and Vibration Impact Assessment | Waves Consulting                      |
| 4    | Traffic Impact Assessment             | McLaren Engineering                   |
| 5    | Air Quality Management Plan           | Northstar                             |
| 6    | Leachate Management Plan              | InSitu Advisory                       |
| 7    | Preliminary Review Comments           | Environmental Protection Agency       |

## 2. Site Analysis

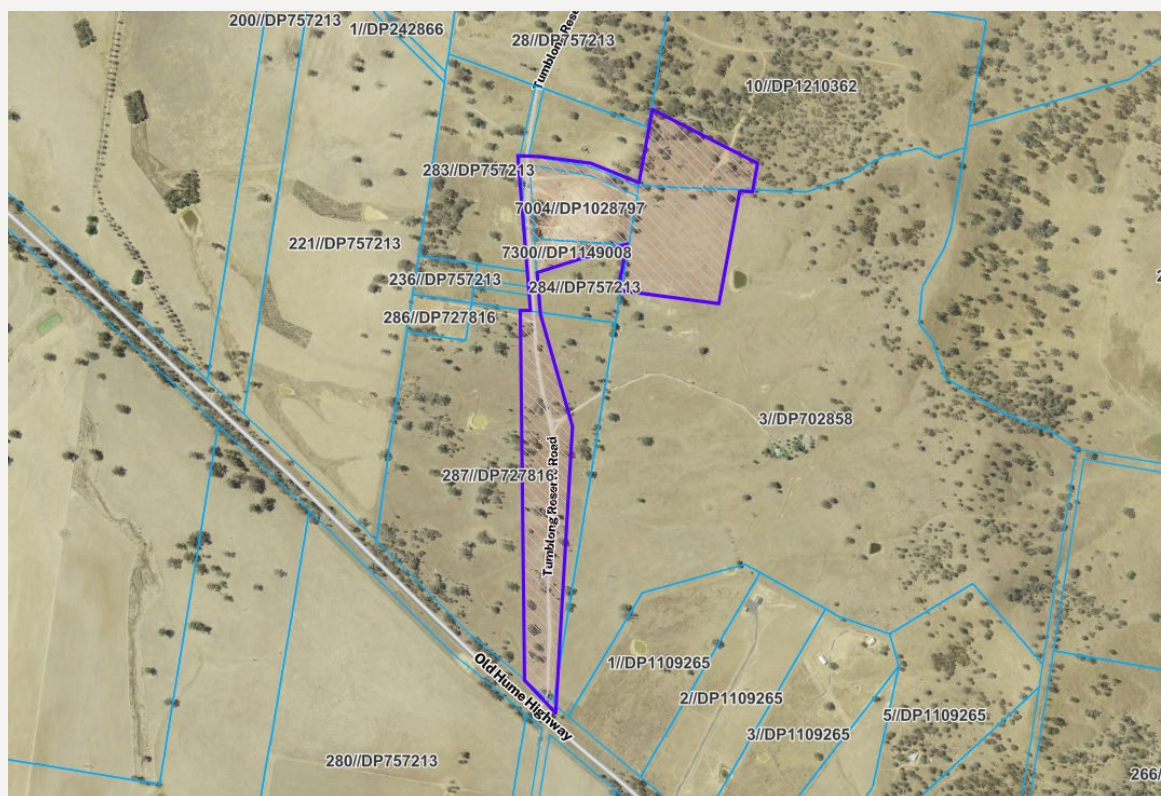
### 2.1. Background

Established in 2020, Tumblong Landfill has effectively managed Visy waste for four years. The landfill accepts only general solid, non-putrescible waste sourced from Visy Paper and Pulp Mill in Tumut, NSW. Located approximately 3.5 kilometres from Tumblong and 18 kilometres from Gundagai, the site is on Tumblong Reserve Road, 1.2 kilometres from its intersection with the Old Hume Highway.

The Old Hume Highway connects to the Hume Highway 2.3 km east of the site. The land is zoned RU1 Primary Production. The facility operates between Monday to Friday 7:00am to 5:00pm and Saturdays between 7:00am to 1:00pm. No operational activities occur on Sundays or public holidays.



Figure 1 | Annotated Landfill Aerial



**Figure 2 | Outline of Landfill Boundary**

## 2.2. Applicant and Landownership

The application is made on behalf of MHE Waste. The existing site landowners are as listed below:

- Part Lot 3 DP702858 – MH Earthmoving
- Part Lot 10 DP1210362 – Mr M P Hay
- Lot 7004 DP1028797 Crown Land – Cootamundra-Gundagai Regional Council as Trustee
- Lot 7300 DP1149008 Crown Land – Cootamundra-Gundagai Regional Council as Trustee
- Part Lot 287 DP727816 – Cootamundra-Gundagai Regional Council as Trustee

The landowners have given their consent for the application to be prepared and lodged. Refer to accompanying documents for a copy of landowner authorisation.

## 2.3. Planning & EPL History

The site received Development Consent DA2019/143 from Cootamundra-Gundagai Council on June 29, 2020. It commenced operations the same year and currently operates under Environmental Protection Licence EPL-21440. This licence authorises the landfill to accept up to 60,000 tonnes of General Solid (non-putrescible) Waste per annum, from Visy Pulp and Paper Mill only.

A modification application (DA2019/143.5) was determined on 27 June 2023 which permitted the construction of an additional 25mL temporary leachate storage dam and associated perimeter bunds on Lot 3 DP702858. The temporary leachate dam is to be decommissioned five (5) years from the date of the transfer from Cell 2.

Table 2 | Summary of Applications

| DA Number                              | Description of Proposal                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DA2019/143</b>                      | Waste disposal facility for inert waste from Visy Processing Plant                                                                                                                                                                                                                                                                                                                             |
| <b>DA2019/143.1 MOD 1 / PAN-5628</b>   | Application to Modify Development Consent - Waste disposal facility for inert waste from Visy Processing Plant, Tumut - To amend conditions 15 and 17 regarding provision of weighbridge and condition 37 regarding payment to acquit the Biodiversity credits                                                                                                                                 |
| <b>DA2019/143.2 MOD 2</b>              | Application to Modify Development Consent – Waste disposal facility for insert waste from Visy Processing Plant, Tumut – To amend conditions 62 and 63 regarding provision of dedicated firefighting resources and provide alternative means to meet required volumes and resources, and conditions 65 and 66 regarding location of structures on site and use of mobile office and amenities. |
| <b>DA2019/143.4 / PAN-103639</b>       | Withdrawn - Modification of Development Consent to remove condition 10b and allow ongoing acceptance of builder's waste of same classification "General Solid (non-putrescible) Waste"                                                                                                                                                                                                         |
| <b>PAN-169127 / PAN-169127</b>         | Returned - Development of a temporary leachate storage dam and additional 'emergency works' procedures as part of the Landfill Stormwater Management Plan (LEMP) for the facility in relation to leachate and stormwater management.                                                                                                                                                           |
| <b>DA2019/143.5 / PAN-180759</b>       | Withdrawn - Development of two (2) temporary leachate dams.                                                                                                                                                                                                                                                                                                                                    |
| <b>DA2019/143.6 MOD 5 / PAN-309398</b> | Application to Modify Development Consent - Construction of an additional 25ML temporary leachate storage dam and associated perimeter bunds on Lot 3 DP702858                                                                                                                                                                                                                                 |

## 2.4. Document Purpose and Structure

The purpose of this report is to assess the economic, environmental and social impacts of the proposed modifications.

**Section 1 – Introduction:** Provides an overview of the proposal and identifies the applicant.

**Section 2 – Site Analysis:** Describes the site and existing approved development.

**Section 3 – Modification Detail:** Provides a detailed description of the proposed modifications to the existing approved development.

**Section 4 – Planning Assessment:** Identifies the statutory requirements for assessing the modification proposal.

**Section 5 – Assessment of Environmental Impacts:** Provides a comprehensive summary of the assessment of the potential environmental impacts and details proposed mitigation measures.

**Section 6 – Conclusion:** Provides an overall evaluation of the modification proposal, having regard to its environmental, economic and social impacts and principles of ecological sustainable development.

### 3. Proposed Modification

The proposed modification involves increasing the annual landfill processing capacity from 60,000 tonnes to 99,000 tonnes per annum. This adjustment is considered necessary to ensure the continued operational viability of the facility and to align with broader waste management objectives.

A summary of the approved and modified proposal is outlined in the table below. Each element of the project is also discussed in further detail within the sections below.

**Table 3 | Existing and Proposed Summary**

| Project Element                           | Existing Proposal                                                                                                                                                   | Proposed Modification   |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>Waste category</b>                     | General solid non-putrescible material                                                                                                                              | No change               |
| <b>Waste origin</b>                       | Restricted to Visy Pulp and Paper Mill                                                                                                                              | No change               |
| <b>Maximum waste processing capacity</b>  | 60,000 tonnes per annum                                                                                                                                             | 99,000 tonnes per annum |
| <b>Waste volume</b>                       | 485,000 cubic metres                                                                                                                                                | No change               |
| <b>Lifespan of landfill</b>               | 10 years from the date of the first load of waste received                                                                                                          | No change               |
| <b>Lifespan of temporary leachate dam</b> | 5 years from the date of transfer of the leachate                                                                                                                   | No change               |
| <b>Site layout and infrastructure</b>     | Leachate dam<br>Stormwater dam<br>Temporary leachate dam<br>Waste cell 1<br>Waste cell 2<br>Overburden stockpile<br>Workers building<br>Two (2) Odour Control Units | No change.              |

| Project Element                    | Existing Proposal                                                                                                                                                        | Proposed Modification                                                                                                                                                                                                                                                           |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Processing operations</b>       | Waste receipt and record<br>Waste unloading<br>Vehicle inspection and exit<br>Waste compaction                                                                           | No change                                                                                                                                                                                                                                                                       |
| <b>Traffic, access and parking</b> | Up to 30 truck movements per day (15 inbound loads and 15 outbound empty trucks)<br><br>Access from Tumblong Reserve Road<br><br>Informal staff parking                  | <ul style="list-style-type: none"> <li>Up to 20 truck movements per day (10 inbound loads and 10 outbound empty trucks)</li> <li>Access from Tumblong Reserve Road (as existing)</li> <li>Informal staff parking (as existing)</li> </ul>                                       |
| <b>Hours of operation</b>          | Monday to Friday 7:00am-5:00pm<br><br>Saturdays between 7:00am- 1:00pm                                                                                                   | No change                                                                                                                                                                                                                                                                       |
| <b>Employment</b>                  | Three (3) on-site plant and maintenance workers<br><br>One (1) loader operator<br><br>Two (2) truck drivers<br><br>One (1) administration officer<br><br>One (1) manager | <ul style="list-style-type: none"> <li>Staff as existing plus one (1) additional truck driver</li> </ul>                                                                                                                                                                        |
| <b>Plant and Equipment</b>         | Haulage Heavy Vehicles (truck and trailer) – typical load of 30 tonnes<br><br>Water cart<br><br>Front End Loader<br><br>Excavator                                        | <ul style="list-style-type: none"> <li>Haulage Heavy Vehicles (truck and trailer) – typical load of 40 tonnes</li> <li>Water Cart (as existing)</li> <li>Front End Loader (as existing)</li> <li>Excavator (as existing)</li> <li>Moxy Dump Truck</li> <li>Compactor</li> </ul> |

### 3.1. Waste Category

The facility is currently approved to accept general solid (non-putrescible) material. This includes waste that does not readily decompose, and includes any of the following in accordance with Schedule 1 of the *Protection of the Environment Operations Act 1997*:

- (a) glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal,
- (b) paper or cardboard,
- (c) household waste from municipal clean-up that does not contain food waste,
- (d) waste collected by or on behalf of local councils from street sweeping,
- (e) grit, sediment, litter and gross pollutants collected in, and removed from, stormwater treatment devices or stormwater management systems, that has been dewatered so that it does not contain free liquids,
- (f) grit and screenings from potable water and water reticulation plants that has been dewatered so that it does not contain free liquids,
- (g) garden waste,
- (h) wood waste,
- (i) waste contaminated with lead (including lead paint waste) from residential premises or educational or child care institutions,
- (j) containers, having previously contained dangerous goods, from which residues have been removed by washing or vacuuming,
- (k) drained oil filters (mechanically crushed), rags and oil absorbent materials that only contain non-volatile petroleum hydrocarbons and do not contain free liquids,
- (l) drained motor oil containers that do not contain free liquids,
- (m) non-putrescible vegetative waste from agriculture, silviculture or horticulture,
- (n) building cavity dust waste removed from residential premises, or educational or child care institutions, being waste that is packaged securely to prevent dust emissions and direct contact,
- (o) synthetic fibre waste (from materials such as fibreglass, polyesters and other plastics) being waste that is packaged securely to prevent dust emissions, but excluding asbestos waste,
- (p) virgin excavated natural material,
- (q) building and demolition waste,
- (r) asphalt waste (including asphalt resulting from road construction and waterproofing works),
- (s) biosolids categorised as unrestricted use, or as restricted use 1, 2 or 3, in accordance with the criteria set out in the Biosolids Guidelines,
- (t) cured concrete waste from a batch plant,
- (u) fully cured and set thermosetting polymers and fibre reinforcing resins,
- (v) fully cured and dried residues of resins, glues, paints, coatings and inks,
- (w) anything that is classified as general solid waste (non-putrescible) pursuant to an EPA Gazettal notice,
- (x) anything that is classified as general solid waste (non-putrescible) pursuant to the Waste Classification Guidelines,
- (y) any mixture of anything referred to in paragraphs (a)–(x).

The modification does not seek to change the waste category type pertaining to paper machine rejects, dregs and grits, boiler sand/fly ash and recrystallisation plant residue that meets the definition of general solid (non-putrescible) waste.

### 3.2. Waste Origin

The facility currently receives all waste from the Visy Pulp and Paper Mill located in Tumut. No changes to the waste origin are proposed for the increase in annual tonnage.

### 3.3. Maximum Waste Processing Capacity

The facility is currently approved to process 60,000 tonnes per annum (tpa) of general solid non-putrescible waste. The proponent is seeking a modification of the consent to increase the processing capacity to 99,000 tpa.

### 3.4. Site Layout and Infrastructure

The landfill will continue to operate within its approved boundaries and utilise existing cell configurations, sealed access roads, ancillary staff facilities, ingress/egress points and leachate/stormwater controls.

#### Landfill Cells

The site currently comprises two (2) engineered landfill cells that have been repurposed from former quarrying activities. Cell 1 has been temporarily capped with an interim cover, while Cell 2 is currently operational. Both landfill cells are constructed with a composite lining system consisting of a geosynthetic clay liner (GCL) and a 2mm high-density polyethylene (HDPE) geomembrane, underlain by a minimum 200mm of compacted clay sub-base to ensure effective containment. Protection (cushion) and separation (filter) geotextiles are also incorporated in both cells to support the integrity of the liner systems.

#### Leachate Dam 1 – Permanent

Leachate Dam 1 is the permanent storage facility approved under the original DA. It is lined with compacted clay, a GCL and a 2mm HDPE geomembrane to form a composite barrier system which services both landfill cells. Leachate collected from Cell 2 is pumped to Leachate Dam1, where it undergoes mechanical aeration and chemical oxidation to minimise odour emissions.

Mechanical aeration is achieved via two floating pumps that draw leachate from deeper layers and spray it over the dam surface through diffusers to enhance oxygen transfer. The leachate is also dosed with hydrogen peroxide ( $H_2O_2$ ) which acts as an oxidising agent to reduce the emission of sulphur-based odorous compounds such as hydrogen sulphide ( $H_2S$ ) and carbon disulphide ( $CS_2$ ). These treatments are carried out in accordance with EPL 21440 Variation Notice 1621459.

#### Leachate Dam 2 – Temporary

A portion of the treated leachate is pumped from Leachate Dam 1 to Leachate Dam 2. The temporary leachate dam was designed to manage runoff and leachate generated under a worst-case rainfall scenario which includes unprecedented storm events.

This temporary dam is fitted with a surface-floating linear low-density polyethylene (LLDPE) cover designed to reduce rainfall ingress and control odours. The cover is equipped with two (2) air displacement outlets, each fitted with activated carbon filters to minimise odour emissions. A layer of liquid above the floating cover reduces wind uplift and adds UV resistance to support the integrity and performance of the cover.

The dam is scheduled to be decommissioned and rehabilitated by 12 December 2028 as required under the development consent. This rehabilitation requirement remains unaffected by the proposed modification. The modification only seeks to increase the annual throughput, not the total amount of waste over the facility's lifespan. As a result, the cumulative leachate generation over the life of the landfill remains as previously assessed. No extension of time, change in design or increase in storage capacity for the temporary dam as constructed is required.

#### Odour Control Units

To further manage odour emissions, leachate stored beneath the floating cover is vented through a dedicated odour control unit (OCU) before release to the atmosphere. Two (2) OCUs have been installed around the temporary leachate storage dam. Each unit treats odorous emissions through a three-stage filtration process comprising potassium hydroxide (KOH)-impregnated activated carbon, McBerns proprietary bulk combined media and McBerns proprietary combined media cartridges. This system is designed to achieve a 99.9% reduction in odorous gases to ensure effective mitigation of potential impacts from leachate storage (Northstar AQIA, 2025).

No changes to the current site arrangements are required to increase operational processing capacity.

### **3.5. Waste Volume and Facility Lifespan**

The landfill is permitted to accept 485,000 cubic metres of waste over its 10-year lifespan. No changes are proposed to these conditions.

### **3.6. Processing Operations**

All operational procedures remain consistent with the existing arrangements including waste acceptance, unloading, compaction and covering activities.

Waste management operations are centred around an active disposal area that includes a waste unloading hopper and the working face. Waste is deposited into the hopper, where it is transferred by excavator into Moxy trucks and transported to the working face of the operational landfill cell. At the working face, the waste is spread and compacted using a landfill compactor.

The working face is stripped back each day to receive new waste deliveries, and at the end of each day, a layer of clayey virgin excavated natural material (VENM) is applied as daily cover; to a minimum depth of 150mm in accordance with Condition O6.1 of EPL 21440. A temporary stockpile of clayey VENM is located to the north-east of both landfill cells. This stockpile serves as a source of material for daily cover, cell engineering works and future rehabilitation activities. Once these works are complete, any remaining stockpiled material will be reshaped and the stockpile area rehabilitated.

### **3.7. Traffic, Access and Parking**

The subject site is currently accessed from a sealed, Crown Road called Tumblong Reserve Road via an existing access point to accommodate truck and dog combination vehicles. Vehicle movements are managed to ensure efficient unloading within the tipping area, with no requirement to circulate the cell. Access arrangements remain unchanged as part of the modification but slight refinements to internal circulation now allow trucks to enter and exit via the same gate to improve operational efficiency.

The proposal to increase processing capacity will result in one (1) extra haulage vehicle to a total of 10 loads per day. This calculates to a total of 20 truck movements. A Traffic Impact Assessment has been completed for the modification which confirms that the site has sufficient capacity to manage the movements without adverse effects on the surrounding road network. The average truck movements for the modification also remain within the scope of the original assessment which was designed for up to 30 vehicle movements per day.

Existing informal parking arrangements near the site office will continue to provide ample space for staff and visitors. No changes to parking layout or access infrastructure are proposed.

### 3.8. Hours of Operation

The proposed modification does not involve any changes to the approved hours of operation for the landfill. All waste disposal, vehicle movements and site management activities will continue to operate in accordance with the hours previously approved under the original development consent.

### 3.9. Employment

The proposal will result in the creation of one (1) additional truck driver position to accommodate the increase in annual tonnage. All other aspects of the staffing operations remain unchanged. This brings the total number of staff employed by the landfill to nine (9) people.

### 3.10. Conditions to be Modified

The words proposed to be inserted in the existing consent are shown in ***bold italics*** and words to be deleted are shown in ~~***bold italics***~~.

#### Condition 9

The Applicant shall carry out the development in accordance with the plans and supporting documentation recommendations and specifications submitted in support of the application including the Environmental Impact Statement, Part A Rev 2 (dated November 2019) and prepared by Salvestro Planning and InSitu Advisory, ~~and~~ documentation submitted in relation to modification DA2019.143 MOD 5 – Temporary Leachate Dam ***and documentation submitted in relation to modification 2019.143 MOD 6.***

Note: Attachment A – General Terms of Approval – NSW Environment Protection Authority form part of this consent. The applicant must also adhere to the conditions contained in Attachment A.

Attachment B – Special Conditions - NSW Environment Protection Authority. The applicant must also adhere to the conditions contained in Attachment B.

#### Condition 10

##### Limits of Consent

10. The Applicant shall not:

- a) receive more than ~~60,000~~ ***99,000*** tonnes per annum of non-putrescible material from the VISY Pulp and Paper Mill located at Tumut NSW; and
- b) receive waste from any other site or source; and
- c) exceed total airspace capacity for waste disposal as stipulated by an EPL; and
- d) receive, store, handle or dispose of General Solid Waste or other classes of waste that are not authorised for receipt on site by an EPL.

#### Condition L3.1

The licensee must not cause, permit or allow any waste generated outside the premises, except the wastes expressly referred to in the column titled 'Waste' and meeting the definition, if any, in the column titled 'Description' in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled 'Activity' in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled 'Other Limits' in the table below.

This condition does not limit any other conditions in this license.

| Code | Waste                                 | Description                                                                                                   | Activity                             | Other Limits                                                                                                              |
|------|---------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| N/A  | General Solid Waste (non-putrescible) | As defined in Schedule 1 of the Protection of the Environment Operations Act 1997, in force from time to time | Waste disposal (application to land) | The total quantity of waste disposed of at the premises must not exceed <del>60,000</del> <b>99,000</b> Tonnes per annum. |

## 4. Planning Assessment

Consideration of this modification is made under Section 4.55(2) of the Environmental Planning and Assessment Act 1979, and in accordance with Part 5 Division 1 of the Environmental Planning and Assessment Regulation 2021. They provide a framework for planning, development assessment and decision-making to protect the environment and guide responsible growth.

### 4.1. Commonwealth Legislation

#### 4.1.1. Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides a national framework for environmental protection and management of nationally and internationally important flora, fauna, ecological communities, and heritage places defined as 'matters of national environmental significance' (MNES). A referral must be made to the Australian Government Minister for the Environment for actions that are likely to have a significant impact on MNES.

An action that has, will have, or is likely to have a significant impact on a MNES or Commonwealth land cannot be undertaken without prior approval from the Commonwealth Minister, as required under Part 9 of the EPBC Act. The 'Protected Matters Search Tool' (PMST) is managed by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and is used to identify MNES near a project. A Protected Matters Search of MNES Matters within a 5km radius of the proposed action site was undertaken on 13 June 2025 to determine what MNES features may be present in the vicinity of the site. The results of the database search are attached and summarised below. The assessment of the original BDAR identified that the proposed development is unlikely to significantly impact on any MNES. The Biodiversity Management Plan remains valid and will continue to be implemented throughout the life of the proposal.

**Table 4 | Protected Matters Search Summary**

| MNES Matter                                                                      | Comment                                                                                                                                                                                                                                                                                                                                                                                                                           | Significant Impact (Y/N) |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <b>World Heritage Properties</b>                                                 | There are none identified within 10km of the site.                                                                                                                                                                                                                                                                                                                                                                                | No                       |
| <b>National Heritage Places</b>                                                  | There are none identified within 10km of the site.                                                                                                                                                                                                                                                                                                                                                                                | No                       |
| <b>Wetlands of International Importance (listed under the Ramsar Convention)</b> | There are no wetlands of international importance within 5kms of the site. Tumblong is located within (4) four wetland buffer zones: <ul style="list-style-type: none"> <li>• Banrock station wetland complex – 600-700km upstream</li> <li>• Hattah-kulkyne lakes – 400-500km upstream</li> <li>• Riverland – 600-700km upstream</li> <li>• The coorong, and lakes Alexandria and albert wetland – 700-800km upstream</li> </ul> | No                       |

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
|                                                 | The proposal will not impact the wetlands as they are located hundreds of kilometres upstream and outside the site's operational area and activities.                                                                                                                                                                                                                                                                                                                                                               |    |
| <b>Commonwealth Marine Area</b>                 | There are none identified within 10km of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No |
| <b>The Great Barrier Reef Marine Park</b>       | There are none identified within 10km of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No |
| <b>Listed Threatened Ecological Communities</b> | <p>There are three (3) threatened ecological communities recorded within the search area. A total of three ecosystem credits were paid to offset the clearing undertaken as part of the construction of the original landfill.</p> <p>No additional clearing is proposed as part of the development therefore, the proposal is not likely to impact any threatened ecological communities.</p>                                                                                                                      | No |
| <b>Listed Threatened Species</b>                | <p>A total of 43 listed threatened species have been recorded within the search area. 18 species credits were paid to offset the clearing associated with the initial landfill construction for the 'regent honeyeater' and 'swift parrot' – both of which were not observed within the project area but assumed present.</p> <p>The works are operational in nature and no clearing or vegetation removal is proposed therefore, the proposal is not likely to impact any threatened species.</p>                  | No |
| <b>Listed Migratory Species</b>                 | <p>A total of eight (8) listed migratory species have been recorded within the search area. The BDAR confirmed that none of the migratory species were recorded on site during the field survey.</p> <p>The works are operational in nature and no clearing or vegetation removal is proposed. The proposed operational increase is unlikely to impact on any area considered to be 'important habitat' for the above migratory species or likely to impact a significant proportion of a migratory population.</p> | No |

#### 4.1.2. Native Title Act 1993

The Native Title Act 1993 (NTA) is an Australian federal law that was enacted to recognise and protect the rights of Indigenous Australians to their traditional lands and waters. It provides a legal framework for Indigenous people to claim native title rights and interests and establishes procedures for how native title claims can be made, assessed and determined. A search of the National Native Title Tribunal database indicated there are currently no registered native titles, native title claims or indigenous land use agreements over the site.

#### 4.2. State Controls

##### 4.2.1. Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) is the primary legislation governing planning and development in NSW. It establishes the framework for assessing development activities and guides the preparation of Environmental Planning Instruments (EPIs), which include State Environmental Planning Policies (SEPPs), Regional Plans, and Local Environmental Plans (LEPs). These instruments, along with other legislative planning tools and procedures, support strategic planning, development assessment, certification processes, compliance, and enforcement. The Act also outlines administrative functions necessary for effective planning and development control across the state. The objects of the Act are outlined in the table below:

**Table 5 | Objectives of the EP&A Act 1979**

| Objective                                                                                                                                                                                               | Comment                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,</i>      | The proposal promotes the social and economic welfare of the community by supporting local industry, reducing long haul waste transport and enabling more efficient use of existing landfill infrastructure without increasing total approved capacity.                     |
| <i>(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,</i> | The proposal supports ecologically sustainable development by balancing operational efficiency with environmental protection and social outcomes. It allows for improved waste management while minimising emissions and supports local employment without disturbing land. |
| <i>(c) to promote the orderly and economic use and development of land,</i>                                                                                                                             | The proposal promotes the efficient and orderly use of existing approved land by maximising the landfill's operational capacity without expanding its physical footprint. This ensures the site continues to serve regional waste needs within its approved limits.         |
| <i>(d) to promote the delivery and maintenance of affordable housing,</i>                                                                                                                               | While not directly related to housing, the proposal indirectly supports affordability by reducing infrastructure strain. This in turn supports regional growth and enables cost effective waste solutions for new developments (including housing projects).                |

| Objective                                                                                                                                                                  | Comment                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,</i> | The modification does not involve any new land disturbance or construction and consequently avoids impacts on native flora, fauna and ecological communities. Environmental safeguards under existing approvals and management plans continue to apply and protect the surrounding environment. |
| <i>(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),</i>                                                  | The site is already developed and no changes to land use or new construction are proposed. There are no anticipated impacts to built or Aboriginal cultural heritage values.                                                                                                                    |
| <i>(g) to promote good design and amenity of the built environment,</i>                                                                                                    | The modification supports improved site functionality and traffic flow which contributes to a safer and more efficient design outcome that maintains local amenity.                                                                                                                             |
| <i>(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,</i>                          | The ongoing operation of the facility remains subject to strict regulatory controls to ensure the safety of workers, visitors and the community.                                                                                                                                                |
| <i>(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,</i>                 | The application is being assessed by the Planning Panel in accordance with regionally significant development which appropriately reflects governance across State and local levels.                                                                                                            |
| <i>(j) to provide increased opportunity for community participation in environmental planning and assessment.</i>                                                          | The modification will be publicly notified in accordance with legislative requirements to provide opportunity for community participation.                                                                                                                                                      |

#### 4.2.2. Integrated Development

Part 4, Division 4.8 of the EP&A Act relates to the assessment of integrated development. Integrated development is development (not being State Significant development or complying development) that in order for it to be carried out requires approval from additional agencies.

The proposal is integrated development and requires approval under the Protection of the Environment Operations Act 1997. The application will be referred to the Environment Protections Authority during assessment for modification of the current EPL.

#### 4.2.3. Designated Development

Part 4, Clause 4.10 of the EP&A Act relates to the assessment of designated development. Under section 4.10(1), a development is classified as designated development if it is explicitly declared as such by an environmental planning instrument (EPI) or the EP&A Regs.

The original development is considered 'waste management facilities or works under Schedule 3 Section 45 of the EP&A Regulations 2021 which is designated development. As the proposed modification seeks to increase the annual throughput to 99,000 tonnes, it remains designated development.

#### 4.2.4. Consent Authority

Consistent with the original application, the consent authority for the modification application remains the Southern Regional Planning Panel. This is due to the land being owned by Council and the development being originally classified as both designated development and regionally significant development.

#### 4.2.5. Ecologically Sustainable Development Principles

A particular aim of the EP&A Act encourages all development to consider the principles of ecological sustainable development (ESD). The goal of ESD is defined as 'development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends' (National Strategy for Ecological Sustainable Development 1992). The following summarises how the project aligns with the principles of ESD as defined under clause 193 of the EP&A Regs.

##### Precautionary principle

The proposal incorporates conservative assumptions in impact modelling and maintains stringent environmental controls, including compliance with EPA licensing and established site management plans. These measures ensure that potential environmental risks are proactively addressed even where uncertainty exists which aligns with the principle's objective of risk minimisation and environmental protection.

##### Inter-generational equity

The proposal supports the principle of inter-generational equity by ensuring the responsible management of waste within an established and regulated facility without the need to expand the landfill's physical footprint. The operations continue to maintain stringent operational controls and environmental safeguards to ensure the ongoing operation of the facility and avoids adverse long-term environmental consequences; thereby preserving the quality of the rural landscape for future generations.

##### Conservation of biological diversity and ecological integrity

The proposal is confined to the existing footprint of the approved landfill and does not involve any encroachment into areas of ecological areas of significance. No additional clearing, earthworks or extension is required to protect the integrity of the surrounding environment. Ongoing site controls and

pollution response plans remain up to date to further safeguard biodiversity diversity and ecological integrity in the vicinity of the site.

#### Improved valuation, pricing and incentive mechanisms

The landfill currently operates under an EPL which ensures that the full life cycle costs associated with waste disposal are internalised. This reflects the “polluter pays” principle as all conditions related to emissions, leachate control, monitoring and site rehabilitation are the responsibility of the operator/licence holder. The proposed modification to enhance operations on site further supports regional waste management in a cost-effective manner by eliminating the need for Visy Pulp and Paper Mill to transport waste over longer distances and enables efficient local solutions for the area.

#### **4.2.6. Section 4.55 Modifications of Consents**

An application may be modified under Section 4.55(2) of the EP&A Act if the consent authority is satisfied that the development to which the consent relates is ‘substantially the same’ as the development for which consent was originally granted.

The table below provides comments against the considerations of the clause.

**Table 6 | EP&A Act Section 4.55(2) Assessment Summary**

| Section 4.55(2)                                                                                                                                                                                                                                                                                                                                                                                                                                            | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(a) it is satisfied that the development to which the consent as modified relates is the same or substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and</i>                                                                                                                                                                         | <p>The proposed modification is considered to be substantially the same development as that for which consent was originally granted. The core land use for a landfill facility accepting waste solely from the Visy Pulp and Paper Mill remains unchanged.</p> <p>No alterations to the building footprint, physical infrastructure, approved land use activities or the overall waste capacity of 485,000 cubic metres over a 10-year period are proposed. The modification seeks only to increase the annual waste throughput from 60,000 tonnes to 99,000 tonnes to improve operational efficiency and enhance regional waste management.</p> |
| <i>(b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 4.8) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and</i> | The application will be referred to the relevant public authority or approval body by the consent authority.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <i>(c) it has notified the application in accordance with—</i>                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Section 4.55(2)                                                                                                                                                                                                                                                                                   | Response                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <p>(i) the regulations, if the regulations so require, or</p> <p>(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and</p> | The application will be notified by the consent authority.                                            |
| <p>(d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.</p>                                                                                           | Considerations of any submissions will be made during the completion of the public exhibition period. |

#### 4.2.7. Matters for Consideration

The following section of the report provides an assessment against the statutory environmental planning instruments relevant to the development. The section also includes discussion and evaluation of the key issues and matters for consideration under section 4.15(1) of the EP&A Act.

**Table 7 | EP&A Act Section 4.15(1) Assessment Summary**

| Matters for Consideration                                                                                                                                                                                                                                                                                                                    | Response                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1(a)(i) any environmental planning instrument, and</p>                                                                                                                                                                                                                                                                                    | <p>Previous applications have provided an assessment of the development against the relevant planning instruments.</p> <p>The proposed modification will not alter the approved development's compliance with the relevant EPI's.</p> |
| <p>1(a)(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and</p> | There are no relevant draft proposed environmental planning instruments.                                                                                                                                                              |
| <p>1(a)(iii) any development control plan, and</p>                                                                                                                                                                                                                                                                                           | There is no relevant development control plans applicable.                                                                                                                                                                            |
| <p>1(a)(iiia) any planning agreement that has been entered into under section 7.4, or any draft</p>                                                                                                                                                                                                                                          | There is no known planning agreement applicable to this application.                                                                                                                                                                  |

|                                                                                                                                                                                 |                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>planning agreement that a developer has offered to enter into under section 7.4, and</i>                                                                                     |                                                                                                                                                                                                                                             |
| <i>1(a)(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),</i>                                                                 | There are no known matters prescribed by the regulations that would hinder the proposed modification.                                                                                                                                       |
| <i>1(a)(v) Repealed</i>                                                                                                                                                         | N/A                                                                                                                                                                                                                                         |
| <i>(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,</i> | The request to modify the conditions of consent will not result in any adverse environmental impacts as discussed below.                                                                                                                    |
| <i>(c) the suitability of the site for the development,</i>                                                                                                                     | The site is considered suitable for the development under previous consents. The modification involves changes to increase operational processing for an existing facility which utilises existing infrastructure and management protocols. |
| <i>(d) any submissions made in accordance with this Act or the regulations,</i>                                                                                                 | Any submissions made during public notification will be considered accordingly.                                                                                                                                                             |
| <i>(e) the public interest.</i>                                                                                                                                                 | The proposal remains within the public interest.                                                                                                                                                                                            |

#### 4.2.8. Environmental Planning and Assessment Regulation 2021

In accordance with s4.55(2) of the Act, this report has been prepared to accompany the modification of a designated development application. Part 5, Division 1, Section 100 outlines the general requirements for a modification application.

**Table 8 | EP&A Regs 2021 Section 100 Assessment Summary**

| Details                                                                                                                                     | Section     |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <i>(a) the name and address of the applicant,</i>                                                                                           | Section 2.2 |
| <i>(b) a description of the development that will be carried out under the development consent,</i>                                         | Section 3   |
| <i>(c) the address and folio identifier of the land on which the development will be carried out,</i>                                       | Section 2.2 |
| <i>(d) a description of the modification to the development consent, including the name, number and date of plans that have changed, to</i> | Section 3   |

|                                                                                                                                                                                                                    |                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <i>enable the consent authority to compare the development with the development originally approved,</i>                                                                                                           |                     |
| <i>(e) whether the modification is intended to—</i><br><i>(i) merely correct a minor error, misdescription or miscalculation, or</i><br><i>(ii) have another effect specified in the modification application,</i> | Section 4.2.6       |
| <i>(f) a description of the expected impacts of the modification,</i>                                                                                                                                              | Section 5           |
| <i>(g) an undertaking that the modified development will remain the same or substantially the same as the development originally approved,</i>                                                                     | Section 4.2.6 and 5 |
| <i>(h) for a modification application that is accompanied by a biodiversity development assessment report—the biodiversity credits information,</i>                                                                | Not applicable.     |
| <i>(i) if the applicant is not the owner of the land—a statement that the owner consents to the making of the modification application,</i>                                                                        | Section 2.2         |
| <i>(j) whether the modification application is being made to—</i><br><i>(i) the Court under the Act, section 4.55, or</i><br><i>(ii) the consent authority under the Act, section 4.56.</i>                        | Not applicable.     |

#### 4.2.9. Regionally Significant Development

The development is for the purposes of ‘waste management facilities or works’ defined under Schedule 3 Section 45 which is considered regionally significant development under Schedule 6 Section 7 of the SEPP (Planning Systems) 2021.

#### 4.2.10. Other NSW Legislation

Consideration of additional approvals, licenses and authorisation under various NSW legislation and regulations is outlined below.

**Table 9 | Other NSW Legislation Assessment Summary**

| Legislation                                      | Relevance                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NSW Contaminated Land Management Act 1997</b> | The original application was accompanied by a Groundwater Impact Assessment by McMahon Earth Science which concluded that the subject site was suitable for the proposed landfill and further investigation was not considered warranted. These conclusions remain relevant as the development is not changing the approved land use. |
| <b>NSW Road Act 1993</b>                         | No disturbance of the local road network is proposed. The proposal does not require consent or concurrence under the Roads Act.                                                                                                                                                                                                       |
| <b>NSW Biodiversity Conservation Act 2016</b>    | No vegetation removal is required to facilitate the proposal and the land is not mapped as pertaining to high biodiversity matters. The conclusions of the existing BDAR by Advitech remain relevant.                                                                                                                                 |
| <b>NSW Water Management Act 2000</b>             | The proposal does not require extraction of water from any watercourses. The site is not located in, on, or under waterfront land under the Act. The proposal is not considered a controlled activity.                                                                                                                                |
| <b>NSW Heritage Act 1977</b>                     | The site or immediate surrounds is not mapped as pertaining to any State or Local heritage items. No permits under the Heritage Act are required.                                                                                                                                                                                     |
| <b>NSW National Parks and Wildlife Act 1974</b>  | An Aboriginal Archaeological Impact Assessment was prepared by OzArk for the original application which concluded that no aboriginal sites were recorded as a result of the field survey. Ongoing due diligence protocols for staff are to remain in place during operations.                                                         |

| Legislation                               | Relevance                                                                                                                                                                                                                                                                      |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NSW Rural Fires Act 1997</b>           | The land is partially identified as Vegetation Category 1 and 3. The development does not require any changes to the structures on site as originally approved. The proposal does not fit the development type criteria and further consideration of bushfire is not required. |
| <b>NSW Crown Land Management Act 2016</b> | The access road into the site (Tumblong Reserve Road) is identified as Crown Land. The applicant has an ongoing tenure over the land and landowner's authorisation has been received from Cootamundra-Gundagai Council as the Trustee for the land.                            |
| <b>NSW Fisheries Management Act 1994</b>  | The proposal does not require a permit under Section 201, 205 or 219 for dredging, water reclamation, harm to marine vegetation or blocking of fish passage.                                                                                                                   |

#### 4.2.11. NSW State Environmental Planning Policies

The proposed development is subject to the provisions of the SEPPs as listed below.

**Table 10 | NSW State Environmental Planning Policies Assessment Summary**

| SEPP (Biodiversity and Conservation) 2021      |                                                                                                                                                                                                                                  |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chapter 1 Preliminary</b>                   | Noted.                                                                                                                                                                                                                           |
| <b>Chapter 2 Vegetation in non-rural areas</b> | Not applicable, the proposal is not on land within the non-rural areas of the State.                                                                                                                                             |
| <b>Chapter 3 Koala habitat protection 2020</b> | Not applicable, the proposal is not in a local government area specified in Schedule 2.                                                                                                                                          |
| <b>Chapter 4 Koala habitat protection 2021</b> | Not applicable, the proposal is not within a local government area specified in Schedule 2.                                                                                                                                      |
| <b>Chapter 5 River Murray lands</b>            | Not applicable, the proposal is not located in the riverine land of the River Murray within the City of Albury and the areas of Balranald, Berrigan, Conargo, Corowa, Deniliquin, Hume, Murray, Wakool, Wentworth and Windouran. |
| <b>Chapter 6 Water catchments</b>              | Not applicable, the proposal is not located on land within the Sydney Drinking Catchment, Sydney Harbour Catchment,                                                                                                              |

| SEPP (Biodiversity and Conservation) 2021                                            |                                                                                                                                    |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                      | Georges River Catchment or the Hawkesbury-Nepean Catchment.                                                                        |
| Chapter 7-12 (repealed)                                                              | Not applicable.                                                                                                                    |
| Chapter 13 Strategic conservation planning                                           | Not applicable, the proposal is not located on the land application maps.                                                          |
| SEPP (Sustainable Buildings) 2022                                                    |                                                                                                                                    |
| Chapter 1 Preliminary                                                                | Noted.                                                                                                                             |
| Chapter 2 Standards for residential development – BASIX                              | Not applicable, proposal is not for residential development and does not require a BASIX certificate to accompany the application. |
| Chapter 3 Standards for non-residential development                                  | Not applicable, the proposal is wholly within the RU1 zone.                                                                        |
| Chapter 4 Miscellaneous                                                              | Noted.                                                                                                                             |
| SEPP (Exempt and Complying Development Codes) 2008                                   |                                                                                                                                    |
| Not applicable, the proposal cannot be conducted as exempt or complying development. |                                                                                                                                    |
| SEPP (Housing) 2021                                                                  |                                                                                                                                    |
| Chapter 1 Preliminary                                                                | Not applicable, the proposal is not for housing development.                                                                       |
| Chapter 2 Affordable housing                                                         | Not applicable, the proposal is not for housing development.                                                                       |
| Chapter 3 Diverse housing                                                            | Not applicable, the proposal is not for housing development.                                                                       |
| SEPP (Industry and Employment) 2021                                                  |                                                                                                                                    |
| Chapter 1 Preliminary                                                                | Noted.                                                                                                                             |

|                                                           |                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chapter 2 Western Sydney employment area</b>           | Not applicable, the proposal is not located within the Western Sydney Employment Area.                                                                                                                                                                                               |
| <b>Chapter 3 Advertising and signage</b>                  | Not applicable, advertising and signage is not proposed.                                                                                                                                                                                                                             |
| <b>SEPP (Planning Systems 2021)</b>                       |                                                                                                                                                                                                                                                                                      |
| <b>Chapter 1 Preliminary</b>                              | Noted.                                                                                                                                                                                                                                                                               |
| <b>Chapter 2 State and regional development</b>           | Applicable and relevant, the proposal modifying an existing waste management facility specified under Schedule 6. The proposal is considered Regional development whereby the Southern Regional Planning Panel is the consent authority.                                             |
| <b>Chapter 3 Aboriginal land</b>                          | Not applicable, the proposal is not located on land owned by the Aboriginal Land Council.                                                                                                                                                                                            |
| <b>SEPP (Primary Production) 2021</b>                     |                                                                                                                                                                                                                                                                                      |
| <b>Chapter 1 Preliminary</b>                              | Noted.                                                                                                                                                                                                                                                                               |
| <b>Chapter 2 Primary production and rural development</b> | Not applicable, the proposal is not on State significant land or for the development of small-scale & low risk artificial waterbodies, livestock industries or sustainable aquaculture.                                                                                              |
| <b>Chapter 3 Central Coast plateau areas</b>              | Not applicable, the proposal is not on land marked Sydney Regional Environmental Plan 8 (Central Coast Plateau Area).                                                                                                                                                                |
| <b>SEPP (Resilience and Hazards) 2021</b>                 |                                                                                                                                                                                                                                                                                      |
| <b>Chapter 1 Preliminary</b>                              | Noted.                                                                                                                                                                                                                                                                               |
| <b>Chapter 2 Coastal management</b>                       | Not applicable, the proposal is not on land within the coastal zone.                                                                                                                                                                                                                 |
| <b>Chapter 3 Hazardous and offensive development</b>      | Applicable and relevant, consideration of the modification against potentially hazardous and offensive development screening is discussed below.                                                                                                                                     |
| <b>Chapter 4 Remediation of land</b>                      | Applicable and relevant, a consent authority must not consent to the carrying out of any development on land unless land contamination has been considered. No changes to land contamination matters are proposed. The proposal has adequately addressed any matters in the original |

|  |                                                                                                                         |
|--|-------------------------------------------------------------------------------------------------------------------------|
|  | application. The modification does not change the remediation measures and conditions outlined in the existing consent. |
|--|-------------------------------------------------------------------------------------------------------------------------|

#### SEPP (Resources and Energy) 2021

|                                                                  |                                                                                                                      |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Chapter 1 Preliminary                                            | Noted.                                                                                                               |
| Chapter 2 Mining, petroleum production and extractive industries | Not applicable, the proposal does not involve mining, petroleum production or activities for an extractive industry. |
| Chapter 3 Extractive industries in Sydney area                   | Not applicable, the proposal does not involve activities for an extractive industry.                                 |

#### SEPP (Transport and Infrastructure) 2021

|                                                                       |                                                                                                                             |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Chapter 1 Preliminary                                                 | Noted.                                                                                                                      |
| Chapter 2 Infrastructure                                              | Applicable and relevant, the proposal is modifying an existing waste management facility.                                   |
| Chapter 3 Educational establishments and child care facilities        | Not applicable, the proposal is not for the development or alteration to an educational establishment or child care centre. |
| Chapter 4 Major infrastructure corridors                              | Not applicable, the proposal is not located on land mapped as intended to be used for a future infrastructure corridor.     |
| Chapter 5 Three ports-Port Botany, Port Kembla, and Port of Newcastle | Not applicable, the proposal is not located on land in Port Botany, Port Kembla and the Port of Newcastle.                  |
| Chapter 6 Moorebank Freight Intermodal Precinct                       | Not applicable, the proposal is not located within the Moorebank Freight Intermodal Precinct.                               |

#### SEPP65 – Design Quality of Residential Apartment Development

Not applicable, the proposal is not for residential apartment development.

#### SEPP (Resilience and Hazards) 2021 Chapter 3 – Hazardous and Offensive Development

The primary aim of Chapter 3 is to manage the risks associated with hazardous and offensive development. It ensures that only proposals can proceed if they are suitably located and able to demonstrate they can be built and operated without posing a significant offsite risk. The proposal has

previously been assessed against the NSW SEPP33 Guidelines 2011 within the original EIS due to the presence of fuel/oils and waste.

#### Potentially Hazardous Development

Potentially hazardous industry means *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 modification does not propose any changes to the current storage of hydrocarbons on site or the type of waste material collected. General solid waste (non-putrescible) material is not classified as a hazardous material under the provisions of the Australian Dangerous Goods Code and the storage of hydrocarbons remains below the threshold of a hazardous material. The conclusions of the original PHA remain valid and satisfactory that the landfill modification is not hazardous or potentially hazardous.

#### Potentially Offensive Development

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.*

In accordance with the *Applying SEPP 33* guideline, the waste associated with landfill activities has the potential to impact air and water which may be offensive in nature. 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.

The site has been the subject of environmental conditions and monitoring in accordance with the current EPL 21440. Measures for managing and mitigating risk at the landfill are outlined in the existing management plans including the recent submission of a Landfill Gas Management Plan (LGMP) and Leachate Management Plan (LMP) to the EPA. It is considered that the proposal is not an offensive industry due to the ability to comply with the licence requirements and appropriate management plans.

### 4.3. Local Controls

#### 4.3.1. Gundagai Local Environmental Plan 2011

The subject site is within the boundaries of the Gundagai Local Environmental Plan (LEP) 2011 and discussion on the applicable sections of the LEP is outlined below.

##### Permissibility

The development remains permissible in the RU1 zone as a *Waste Disposal Facility*:

*Waste Disposal Facility means a building or place used for the disposal of waste by landfill, incineration or other means, including such works or activities as recycling, resource recovery and other resource management activities, energy generation from gases, leachate management, odour control and the winning of extractive material to generate a void for disposal of waste or to cover waste after its disposal.*

No changes to the current use are proposed and it continues to achieve the zone objectives.

##### Clause 6.1 Natural Resources Sensitivity – Biodiversity

This clause refers to land identified as “sensitive land” on the *Natural Resource Mapping* and aims to maintain terrestrial and aquatic biodiversity. The site is partially mapped as identified in the extract below therefore, this clause is relevant and must be considered.



**Figure 3 | GLEP 2011 Natural Resources Sensitivity Biodiversity Map Sheet NWR\_004**

The original development was accompanied by a *Biodiversity Development Assessment Report* (BDAR) by Advitech which confirmed that the proposal will have no adverse impact on any environmental factors. No vegetation removal is required to facilitate the proposal and the land is not mapped as pertaining to high biodiversity matters. The conclusions of the report remain valid for the proposed modification as there are no changes to the current use or footprint.

No threatened species or significant species, populations or ecological communities will be detrimentally impacted by the proposal. Operational measures at the site will remain in accordance with the existing *Biodiversity Management Plan*.

### Clause 6.2 Natural Resources Sensitivity – Land

This clause refers to maintaining soil resources and the diversity and stability of landscapes. The objective of this clause is to maintain soil resources and the diversity and stability of landscapes, including protecting land with steep slopes and shallow soils, land subject to soil salinity, land with high erosion potential soils, land susceptible to other forms of land degradation and other landforms. The site is located in close proximity to land mapped as “sensitive land” under this clause, as shown in the map extract below.



**Figure 4 | GLEP 2011 Natural Resources Sensitivity Land Map Sheet NWR\_004**

The original development application was supported by a range of technical reports which confirmed that there is no degradation of the soils on the site or adjacent as a product of the waste facility. There are no changes to the footprint or ongoing use of the site as a landfill therefore, the conclusions of the original assessment remain valid and no further assessment is deemed necessary.

### Clause 6.3 Natural Resources Sensitivity – Water

This clause refers to maintaining the hydrological functions of riparian land, waterways and aquifers. The objective of this clause is to maintain the hydrological functions of riparian land, waterways and aquifers, including protecting water quality, natural water flows, the stability of the bed and banks of waterways and groundwater systems. The site is mapped as being sensitive to water resources as shown in the figure below.



**Figure 5 | GLEP 2011 Natural Resources Sensitivity Water Map Sheet NWR\_004**

The original development was accompanied by a *Groundwater Impact Assessment* by McMahon Earth Science which identified that groundwater contamination is unlikely to occur and the site is suitable for the proposed landfill use. The conclusions of the report remain valid as there are no changes to the current use. The site will continue to be monitored by the EPA in accordance with the existing EPL.

#### **4.3.2. Development Control Plan**

There is no development control plan applicable to the site.

## 5. Assessment of Environmental Impacts

### 5.1. Traffic & Transportation

A Traffic Impact Assessment (TIA) has been prepared for the modification by McLaren Traffic Engineering (MTE) and is attached as an accompanying document. Traffic impacts from the project related to operational vehicles has been assessed to determine the site capacity and proposed generation in accordance with *Austroads Guide to Traffic Management Part 12: Integrated Assessments for Developments*.

#### 5.1.1. Assumptions

The TIA used the following assumptions as part of the assessment:

- The truck movements occur at their maximum during every hour of operation, such that the site operates for a total of 10 hours on a weekday and 5 hours on a Saturday (total of 55 operating hours per week)
- The yearly target is to transport 99,000 tonnes of material into the site
- The average load per truck is of 40 tonnes – truck and dog combination
- The average dwell time for incoming trucks is 15 minutes
- 50 operating weeks (conservative assuming two full weeks of shutdown periods per year)

#### 5.1.2. Parking and Loading

The Traffic Impact Assessment (TIA) has considered the existing parking arrangements in the context of the proposed modification. The proposal will result in the need for one (1) additional haulage vehicle driver to accommodate the increased processing capacity. Existing informal parking areas located near the office amenities are sufficient to accommodate staff and visitor parking, with adequate space available to provide for accessible parking if required. It is also noted that there is no DCP applicable to the site that mandates designated spaces for accessible, bicycle or motorcycle parking.

No changes to the parking arrangements are proposed to facilitate the proposal and as originally approved. There is sufficient parking on site to accommodate the additional haulage vehicle driver.



Figure 6 | Existing Parking Area

### 5.1.3. Servicing and Loading

The current waste handling and processing operations at the site involves the use of 19-metre truck and dog combinations which represent the largest vehicles accessing the premises. These vehicles transport waste from the Paper Mill and deliver it directly to the designated tipping area within the landfill. Waste is unloaded via an unloading hopper directly into the active landfill cells. Material is then evenly spread and compacted by tracked excavators operating within the cell to maximise space utilisation and ensure operational efficiency.

The existing traffic circulation pattern has been refined to improve safety and efficiency. Vehicles now enter and exit through the same access gate and turn around within the site, eliminating the need to circulate around the cell perimeter. There are no proposed changes to these existing vehicle types or access points as part of this modification. The TIA confirms that the site can service and load appropriately.



**Figure 7 | Truck and Dog Vehicle Movement Arrangements (McLaren 2025)**

#### **5.1.4. Assessment**

The proposed increase in annual processing capacity will result in an average of ten (10) truck loads per day with each truck carrying approximately 40 tonnes of waste. This equates to an average of 0.9 trucks per hour throughout the operating day to achieve the proposed 99,000 tonnes per annum. The assessment confirms that the site has sufficient operational capacity to accommodate up to two (2) truck movements during a peak hour without causing congestion or adverse traffic impacts on the surrounding road network.

The site has the theoretical capacity to manage up to 2.3 times the proposal's average truck arrival rate, which provides operational flexibility during concentrated delivery periods. This ensures that even under non-uniform arrival patterns (ie. when trucks arrive in short succession rather than evenly spaced) there is no risk of operational bottlenecks or safety issues on-site or on adjacent public roads.

Given the low volume of traffic generated and the fact that the development will result in fewer than 10 vehicle trips in any peak hour, the modification is considered to have a negligible impact on the existing traffic conditions.

It is also worth noting that the original development application assessed typical daily truck movements to range between 10-15 truck trips per direction, corresponding to approximately 300-450 tonnes per day. The proposed modification remains within the previously assessed operational envelope in terms of traffic generation and site capacity which reinforces that the modification remains substantially the same.

#### **5.1.5. Mitigation Measures**

The report identifies that the modification will result in a negligible impact on the surrounding road network and does not propose any mitigation measures. It is considered that the modification can be sufficiently accommodated by the existing mitigation measures as outlined in the *current Transport Management Plan*.

## 5.2. Leachate Management

A stormwater management plan is currently being adhered to on site. No additional development outside of the existing lined landfill is proposed. The preparation and submission of an LMP in accordance with best practice landfill management has been prepared as part of a pollution response plan to the EPA.

This plan includes measures to minimise the risk of leachate generation and migration to protect both surface water and groundwater resources. The proposed increase in processing output does not necessitate any changes to existing environmental management plans as all activities will continue to operate within the existing approved footprint and site infrastructure for up to 485,000 cubic metres of waste disposed at the premises.

As discussed within the LMP, key aspects of leachate management undertaken onsite include:

- Leachate collection pipes and drainage layers, which intercept and convey leachate from within the waste mass
- Basal sumps and sidewall risers for leachate extraction
- Temporary and permanent lined leachate storage dams for interim containment
- Automated pump control systems, including float switches, to manage leachate levels at EPL Thresholds
- Several leachate minimisation measures have also been implemented including:
- Landfilled waste is compacted following placement and covered with daily cover materials from on-site stockpiles
- Intermediate cover material is placed on areas of waste that will be exposed for an extended period of time (> 90 days, but not yet final capped) with on-site stockpiled clay-rich materials
- Where possible, clean stormwater is diverted away from landfilled areas which have not yet reached their final levels and grades
- Daily and intermediate covered areas are generally sloped to encourage stormwater runoff

Leachate disposal is conducted strictly in accordance with EPL 21440. It may occur through evaporation, irrigation or transport to a licensed facility for disposal. These methods ensure that leachate is managed responsibly to minimise environmental impact. A range of pollution response measures have also been implemented as outlined in the LMP to minimise water ingress, leachate extraction control, storage options, treatment and disposal. Leachate quality monitoring is conducted every 6 months to records any exceedances of application criteria and investigate promptly with the EPA.

No changes are proposed to leachate management and the LMP is considered satisfactory for the acceptance of additional waste. The LMP will be updated prior to acceptance of any additional waste.

## 5.3. Air Quality & Odour

An Air Quality Impact Assessment (AQIA) and Air Quality Management Plan (AQMP) have been completed for the modification by Northstar Consulting and are attached as accompanying documents. The policies, guidelines and plans which have been referenced during the preparation of the assessment include:

- Protection of the Environment Operations Act 1997 (POEO Act)
- Protection of the Environment Operations (Clean Air) Regulation 2022 (POEO CAR)
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2022a)

- Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (NSW EPA, 2022b)
- Technical Framework (NSW DEC, 2006a) and Technical Notes (NSW DEC, 2006b) – Assessment and Management of Odour from Stationary Sources in NSW; and
- Environmental Guidelines - Solid Waste Landfills (second edition) (NSW EPA, 2016).

The objective of the AQIA is to identify and assess the potential for adverse operational air quality impacts from the modification. Dispersion modelling was conducted using the CALPUFF dispersion model which is approved by the NSW EPA for assessing air quality impacts in NSW. The primary potential air emission sources associated with the site include:

- Movement of vehicles in and around the site on paved and unpaved roads
- Placement of waste
- Placement of cover material
- Active tip face
- Intermediate waste cover and
- Leachate

Emission estimates for a process are typically derived through direct measurement or the application of standardised emission factors that accurately reflect the activities under assessment. For this proposal, the specific pollutants associated with the activities on site are:

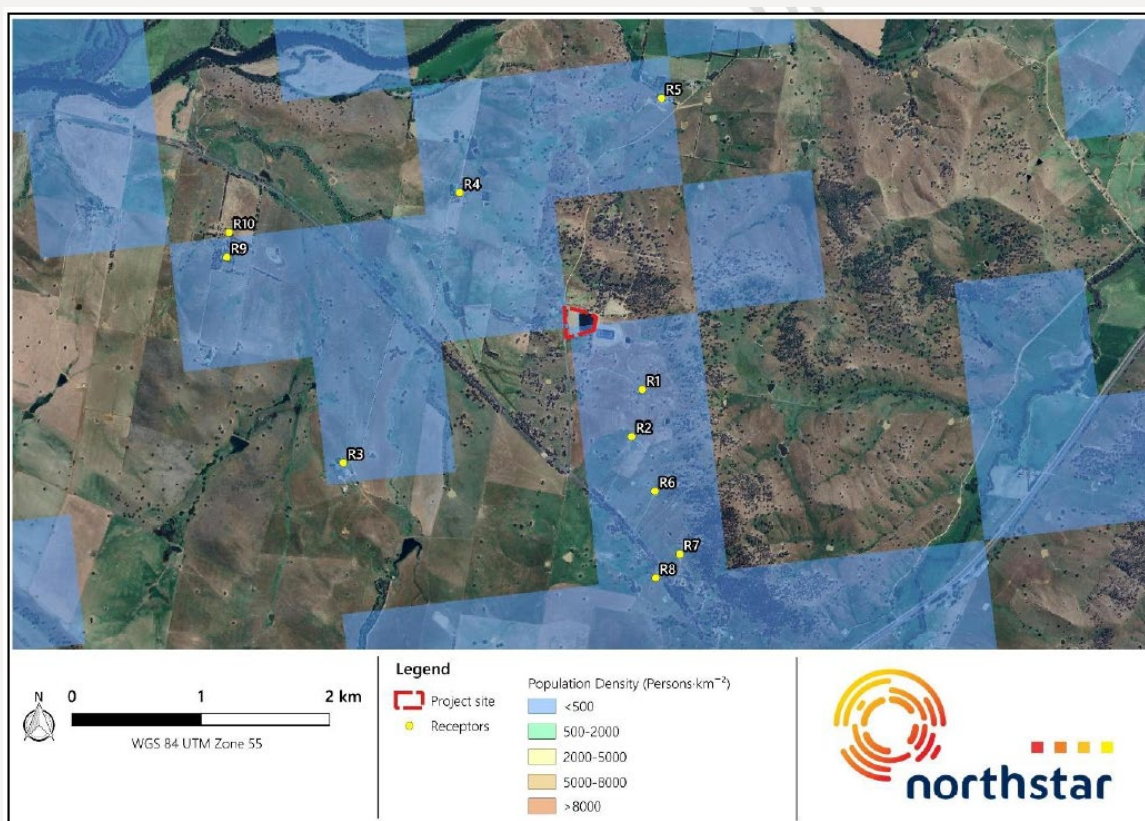
- Total suspended particles (TSP)
- Particulate matter with a mean aerodynamic diameter of 10 micrometres (µm) or less (PM10);
- Particulate matter with a mean aerodynamic diameter of 2.5 µm or less (PM2.5); and
- Odour (as complex mixture of odorous gases including hydrogen sulphide H<sub>2</sub>S).

Air quality assessments commonly involve a desktop mapping analysis to identify 'discrete receptor locations'. These are specific points chosen to represent areas that may be sensitive to changes in air quality. The sensitive receptors surrounding the site are outlined below.

**Table 11 | Sensitive Receptor Locations**

| Receptor | Location                           | Land Use    |
|----------|------------------------------------|-------------|
| R1       | 68 Tumblong Reserve Road, Tumblong | Residential |
| R2       | 108 Old Hume Highway, Tumblong     | Residential |
| R3       | 419 Old Hume Highway, Tumblong     | Residential |
| R4       | 346 Old Hume Highway, Tumblong     | Residential |

| Receptor | Location                            | Land Use    |
|----------|-------------------------------------|-------------|
| R5       | 335 Tumblong Reserve Road, Tumblong | Residential |
| R6       | 4 Old Hume Highway, Tumblong        | Residential |
| R7       | Old Hume Highway, Tumblong          | Residential |
| R8       | 119 Old Hume Highway, Tumblong      | Residential |
| R9       | 555 Old Hume Highway, Tumblong      | Residential |
| R10      | 555 Old Hume Highway, Tumblong      | Residential |



**Figure 8 | Sensitive receptors surrounding the project site (Northstar 2025)**

### 5.3.1. Assumptions

As odour measurement data is often only available for more odorous (putrescible) waste streams, the emission factors used in this assessment have been derived from sources handling putrescible waste. This approach results in a highly conservative estimate and likely over-predicting odour impacts associated with the proposed modification.

Emission factors adopted within the assessment have been sought from sampling performed for the Melbourne Regional Landfill (MRL) Air Quality Assessment. The odour emission rates adopted are associated with putrescible waste operations and therefore, represent reflect worst-case scenarios and are not representative of the much lower odour potential of solid non-putrescible waste handled at Tumblong.

Additional reference was made to odour data from the leachate dam at the Woodlawn Bioreactor facility in Tarago which also manages putrescible waste. This leachate is considerably more odorous than the leachate generated from non-putrescible waste at the subject facility which reinforces the conservative nature of the odour assumptions used in the AQIA.

The area of the full permanent leachate storage area is assumed to be 2,436m<sup>2</sup>, in addition to a temporary leachate storage area of approximately 9,100m<sup>2</sup>. These areas represent the landfill operating at maximum capacity.

### 5.3.2. Odour Assessment

1 odour concentration (OU) is the theoretical level of detection of an odour and levels less than 1 OU are not measurable. The level at which an odour is perceived to be a nuisance can range from 2 OU to 10 OU. The report notes that odour from proposed and existing facilities in NSW indicates that an odour performance goal of 7 OU is likely to represent the level below which “offensive” odours should not occur.

As the area surrounding the site is largely rural in nature and has a population of between 10 and 30 residents, the relevant odour criterion for the facility is 6 OU in accordance with NSW EPA Technical Framework odour criteria. The AQIA assessment outlines that the odour concentrations are predicted to be less than 6 OU at all receptors.

**Table 12 | Predicted Odour Concentration at Receptors**

| Parameter | Predicted Odour Concentration |
|-----------|-------------------------------|
| R1        | 1.4                           |
| R2        | 1.5                           |
| R3        | 0.2                           |
| R4        | 0.3                           |
| R5        | 0.1                           |
| R6        | 0.9                           |
| R7        | 0.5                           |
| R8        | 0.3                           |
| R9        | 0.2                           |

|     |     |
|-----|-----|
| R10 | 0.2 |
|-----|-----|

### 5.3.3. Air Quality Assessment

An assessment of the operational impacts of the modification has been carried out to represent typical day-to-day activities. This provides a basis for evaluating average conditions against long-term (annual average) air quality criteria for particulate matter. In addition, potential peak activity periods have been considered to assess impacts against short-term (24-hour) particulate matter criteria.

The results of dispersion modelling are categorised into two sections:

- Incremental impact - relates to the concentrations predicted due to the operation in isolation
- Cumulative impact - relates to the incremental concentrations predicted due to the operation of the Project PLUS background air quality concentrations

The criteria for the proposal is listed in the *NSW EPA Approved Methods* as outlined below.

| Pollutant                               | Averaging period      | Units                                  | Criterion | Notes                                                                      |
|-----------------------------------------|-----------------------|----------------------------------------|-----------|----------------------------------------------------------------------------|
| Particulates<br>(as PM <sub>10</sub> )  | 24 hours              | µg·m <sup>-3</sup> <sup>(A)</sup>      | 50        | Numerically equivalent to the AAQ NEPM <sup>(B)</sup> standards and goals. |
|                                         | 1 year                | µg·m <sup>-3</sup>                     | 25        |                                                                            |
| Particulates<br>(as PM <sub>2.5</sub> ) | 24 hours              | µg·m <sup>-3</sup>                     | 25        |                                                                            |
|                                         | 1 year                | µg·m <sup>-3</sup>                     | 8         |                                                                            |
| Particulates (as TSP)                   | 1 year                | µg·m <sup>-3</sup>                     | 90        | Assessed as insoluble solids as defined by AS 3580.10.1                    |
| Particulates<br>(as dust deposition)    | 1 year <sup>(C)</sup> | g·m <sup>-2</sup> ·month <sup>-1</sup> | 2         |                                                                            |
|                                         | 1 year <sup>(D)</sup> | g·m <sup>-2</sup> ·month <sup>-1</sup> | 4         |                                                                            |

**Notes:** (A): micrograms per cubic metre of air  
 (B): National Environment Protection (Ambient Air Quality) Measure  
 (C): Maximum increase in deposited dust level  
 (D): Maximum total deposited dust level

**Figure 9 | NSW EPA impact assessment criteria (Northstar 2025)**

The predicted annual average particulate matter concentrations resulting from the operations are all below the NSW EPA impact assessment criteria at all sensitive receptor locations (refer to the below figure from the Northstar report). Dust deposition rates also remain compliant at all sensitive receptors.

| Receptor            | Annual average concentration ( $\mu\text{g}\cdot\text{m}^{-3}$ ) |      |        |                  |      |        |                   |      |        |
|---------------------|------------------------------------------------------------------|------|--------|------------------|------|--------|-------------------|------|--------|
|                     | TSP                                                              |      |        | PM <sub>10</sub> |      |        | PM <sub>2.5</sub> |      |        |
|                     | Incr.                                                            | Bkg. | Cumul. | Incr.            | Bkg. | Cumul. | Incr.             | Bkg. | Cumul. |
| Criterion           |                                                                  | 90   |        |                  | 25   |        |                   | 8    |        |
| Max. % of criterion | 0.6                                                              | 43.7 | 44.3   | 1.1              | 70.8 | 71.9   | 0.0               | 78.8 | 79.4   |
| R1                  | 0.6                                                              | 39.3 | 39.9   | 0.3              | 17.7 | 18.0   | <0.1              | 6.3  | 6.4    |
| R2                  | 0.5                                                              | 39.3 | 39.8   | 0.2              | 17.7 | 17.9   | <0.1              | 6.3  | 6.4    |
| R3                  | <0.1                                                             | 39.3 | 39.4   | <0.1             | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |
| R4                  | <0.1                                                             | 39.3 | 39.4   | <0.1             | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |
| R5                  | <0.1                                                             | 39.3 | 39.4   | <0.1             | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |
| R6                  | 0.2                                                              | 39.3 | 39.5   | 0.1              | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |
| R7                  | <0.1                                                             | 39.3 | 39.4   | <0.1             | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |
| R8                  | <0.1                                                             | 39.3 | 39.4   | <0.1             | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |
| R9                  | <0.1                                                             | 39.3 | 39.4   | <0.1             | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |
| R10                 | <0.1                                                             | 39.3 | 39.4   | <0.1             | 17.7 | 17.8   | <0.1              | 6.3  | 6.4    |

Figure 10 | Predicted annual average TSP, PM10 and PM2.5 concentrations (Northstar 2025)

| Receptor            | Annual average dust deposition ( $\text{g}\cdot\text{m}^{-2}\cdot\text{month}^{-1}$ ) |            |                   |
|---------------------|---------------------------------------------------------------------------------------|------------|-------------------|
|                     | Incremental impact                                                                    | Background | Cumulative impact |
| Criterion           | 2.0                                                                                   | -          | 4.0               |
| Max. % of criterion | <5%                                                                                   | -          | <2.5%             |
| R1                  | <0.1                                                                                  | 2.0        | <2.1              |
| R2                  | <0.1                                                                                  | 2.0        | <2.1              |
| R3                  | <0.1                                                                                  | 2.0        | <2.1              |
| R4                  | <0.1                                                                                  | 2.0        | <2.1              |
| R5                  | <0.1                                                                                  | 2.0        | <2.1              |
| R6                  | <0.1                                                                                  | 2.0        | <2.1              |
| R7                  | <0.1                                                                                  | 2.0        | <2.1              |
| R8                  | <0.1                                                                                  | 2.0        | <2.1              |
| R9                  | <0.1                                                                                  | 2.0        | <2.1              |
| R10                 | <0.1                                                                                  | 2.0        | <2.1              |

Figure 11 | Predicted annual average dust deposition rates (Northstar 2025)

A contemporaneous analysis was undertaken by adding each predicted 24-hour PM10 and PM2.5 concentration to the corresponding measured background level. This approach provides a realistic estimate of cumulative air quality impacts on a day-by-day basis. The data indicates that the highest cumulative air quality impacts are primarily due to elevated background levels, not emissions from the proposal. These exceedances occurred on days affected by hazard reduction burns which are exceptional events beyond the facility's control.

| Date                                                                                                                                                  | 24-hour average PM <sub>10</sub> concentration<br>( $\mu\text{g}\cdot\text{m}^{-3}$ ) – Receptor R1 |      |        | Date                                                                                                                                                     | 24-hour average PM <sub>10</sub> concentration<br>( $\mu\text{g}\cdot\text{m}^{-3}$ ) – Receptor R1 |      |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------|--------|
|                                                                                                                                                       | Incr.                                                                                               | Bkg. | Cumul. |                                                                                                                                                          | Incr.                                                                                               | Bkg. | Cumul. |
| 30/04/2022                                                                                                                                            | <0.1                                                                                                | 69.1 | 69.2   | 3/07/2022                                                                                                                                                | 1.8                                                                                                 | 6.9  | 8.7    |
| 18/04/2022                                                                                                                                            | 0.3                                                                                                 | 62.9 | 63.2   | 14/06/2022                                                                                                                                               | 1.7                                                                                                 | 14.1 | 15.8   |
| 29/04/2022                                                                                                                                            | 0.3                                                                                                 | 62.6 | 62.9   | 31/05/2022                                                                                                                                               | 1.5                                                                                                 | 20.6 | 22.1   |
| 27/04/2022                                                                                                                                            | 0.3                                                                                                 | 59.3 | 59.6   | 4/07/2022                                                                                                                                                | 1.4                                                                                                 | 6.3  | 7.7    |
| 28/04/2022                                                                                                                                            | 0.2                                                                                                 | 59.3 | 59.5   | 10/05/2022                                                                                                                                               | 1.3                                                                                                 | 22.6 | 23.9   |
| 24/01/2022                                                                                                                                            | 0.2                                                                                                 | 53.6 | 53.8   | 11/05/2022                                                                                                                                               | 1.2                                                                                                 | 7.3  | 8.5    |
| 23/01/2022                                                                                                                                            | 0.2                                                                                                 | 51.0 | 51.2   | 20/06/2022                                                                                                                                               | 1.2                                                                                                 | 14.4 | 15.6   |
| 15/01/2022                                                                                                                                            | 0.1                                                                                                 | 49.4 | 49.5   | 29/05/2022                                                                                                                                               | 1.1                                                                                                 | 25.3 | 26.4   |
| 1/05/2022                                                                                                                                             | <0.1                                                                                                | 49.4 | 49.5   | 11/06/2022                                                                                                                                               | 1.1                                                                                                 | 7.6  | 8.7    |
| 8/03/2022                                                                                                                                             | 0.3                                                                                                 | 47.6 | 47.9   | 8/06/2022                                                                                                                                                | 1.1                                                                                                 | 8.2  | 9.3    |
| These data represent the highest Cumulative Impact 24-hour PM <sub>10</sub> predictions (outlined in red) as a result of the operation of the Project |                                                                                                     |      |        | These data represent the highest Incremental Impact 24-hour PM <sub>10</sub> predictions (outlined in blue) as a result of the operation of the Project. |                                                                                                     |      |        |

**Figure 12 | Summary of contemporaneous impact and background – PM10 concentrations (Northstar 2025)**

| Date                                                                                                                                                    | 24-hour average PM <sub>2.5</sub> concentration<br>( $\mu\text{g}\cdot\text{m}^{-3}$ ) – Receptor R1 |      |        | Date                                                                                                                                                      | 24-hour average PM <sub>2.5</sub> concentration<br>( $\mu\text{g}\cdot\text{m}^{-3}$ ) – Receptor R1 |      |        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------|--------|
|                                                                                                                                                         | Incr.                                                                                                | Bkg. | Cumul. |                                                                                                                                                           | Incr.                                                                                                | Bkg. | Cumul. |
| 21/05/2022                                                                                                                                              | <0.1                                                                                                 | 25.4 | 25.5   | 14/06/2022                                                                                                                                                | 0.4                                                                                                  | 13.4 | 13.8   |
| 23/05/2022                                                                                                                                              | <0.1                                                                                                 | 22.8 | 22.9   | 3/07/2022                                                                                                                                                 | 0.3                                                                                                  | 5.3  | 5.6    |
| 18/04/2022                                                                                                                                              | <0.1                                                                                                 | 22.3 | 22.4   | 31/05/2022                                                                                                                                                | 0.3                                                                                                  | 16.1 | 16.4   |
| 29/05/2022                                                                                                                                              | 0.3                                                                                                  | 19.2 | 19.5   | 11/05/2022                                                                                                                                                | 0.3                                                                                                  | 4.0  | 4.3    |
| 19/04/2022                                                                                                                                              | <0.1                                                                                                 | 19.1 | 19.2   | 20/06/2022                                                                                                                                                | 0.3                                                                                                  | 15.5 | 15.8   |
| 11/07/2022                                                                                                                                              | <0.1                                                                                                 | 18.9 | 19.0   | 22/05/2022                                                                                                                                                | 0.3                                                                                                  | 16.5 | 16.8   |
| 20/05/2022                                                                                                                                              | 0.2                                                                                                  | 18.4 | 18.6   | 29/05/2022                                                                                                                                                | 0.3                                                                                                  | 19.2 | 19.5   |
| 10/07/2022                                                                                                                                              | 0.2                                                                                                  | 17.7 | 17.9   | 4/07/2022                                                                                                                                                 | 0.3                                                                                                  | 4.0  | 4.3    |
| 30/05/2022                                                                                                                                              | 0.2                                                                                                  | 17.2 | 17.4   | 10/07/2022                                                                                                                                                | 0.2                                                                                                  | 17.7 | 17.9   |
| 19/05/2022                                                                                                                                              | 0.2                                                                                                  | 17.0 | 17.2   | 30/05/2022                                                                                                                                                | 0.2                                                                                                  | 17.2 | 17.4   |
| These data represent the highest Cumulative Impact 24-hour PM <sub>2.5</sub> predictions (outlined in red) as a result of the operation of the Project. |                                                                                                      |      |        | These data represent the highest Incremental Impact 24-hour PM <sub>2.5</sub> predictions (outlined in blue) as a result of the operation of the Project. |                                                                                                      |      |        |

**Figure 13 | Summary of contemporaneous impact and background – PM2.5 concentrations (Northstar 2025)**

#### 5.3.4. Assessment of Hydrogen Sulphide H<sub>2</sub>S Impacts

The odour monitoring data used include contributions from hydrogen sulphide (H<sub>2</sub>S) as well as smaller volume fractions of other odorants, such as carbon disulphide (CS<sub>2</sub>) and other reduced sulphur compounds. The assessment has been undertaken against the odour impact assessment criterion for complex mixtures which is more encompassing than the criterion for H<sub>2</sub>S considered as a single discrete odorant.

The approved methods stipulate separate criteria for individual odorous pollutants and for complex mixtures. While the complex-mixtures criterion has been adopted for the assessment, additional context is provided to describe the relationship between monitored H<sub>2</sub>S concentrations and the corresponding individual H<sub>2</sub>S criterion.

The adopted odour criterion for the assessment is 6 OU and the equivalent individual H<sub>2</sub>S criterion is presented below. It is expected that the proposal will comply with the individual H<sub>2</sub>S criterion where monitored H<sub>2</sub>S concentrations are less than 69% of the monitored odour concentration.

| Population of affected community | Complex Mixture (OU) | H <sub>2</sub> S (µg·m <sup>-3</sup> ) | H <sub>2</sub> S as percentage of complex mixtures |
|----------------------------------|----------------------|----------------------------------------|----------------------------------------------------|
| Urban area (≥2 000)              | 2.0                  | 1.38                                   | 69%                                                |
| 500 – 2 000                      | 3.0                  | 2.07                                   | 69%                                                |
| 125 – 500                        | 4.0                  | 2.76                                   | 69%                                                |
| 30 – 125                         | 5.0                  | 3.45                                   | 69%                                                |
| 10 – 30                          | 6.0                  | 4.14                                   | 69%                                                |
| Single residence (≤2)            | 7.0                  | 4.83                                   | 69%                                                |

**Figure 14 | Technical Framework Odour and H<sub>2</sub>S Criteria (Northstar 2025)**

### 5.3.5. Mitigation Measures

Impacts associated with air quality are predicted to be less than the most stringent odour criterion at the nearest sensitive receptors, even adopting worst case assumptions. Despite strict compliance, a range of mitigation measures are recommended to ensure particulate matter and odour are controlled during operation.

- Minimisation of drop heights when placing waste and daily cover;
- The limiting of vehicle speeds across the site, and on the paved road between the Old Hume Highway and the site;
- Restriction of the active tip face to 600m<sup>2</sup>;
- Placement of daily cover on the active tip face at a depth of 150mm at the close of business each day;
- The use of intermediate cover on areas awaiting final capping;
- Aeration and H<sub>2</sub>O<sub>2</sub> dosing for the permanent leachate storage dam; and,
- Treatment of odour emissions collected from temporary leachate storage dam by two OCUs.
- Odour monitoring using flux hood for the odour generating sources (ie leachate pond, active cell, intermediate covered cell and capped cell)
- H<sub>2</sub>S monitoring using an appropriate hand-held H<sub>2</sub>S monitor to establish the empirical relationship between H<sub>2</sub>S and odour generation rates
- Dust monitoring using dust deposition gauges at the specified locations within the EPL and AQMP
- A complaints register would be maintained to record any complaints relating to air quality (and odour). These records would be made available to NSW EPA and DPHI upon request.

These mitigation measures have been incorporated into the LMP by InSitu Advisory and Air Quality AQMP by Northstar and will be adhered to throughout the life of the facility.

#### 5.4. Noise and Vibration

A Noise and Vibration Impact Assessment (NVIA) has completed for the modification by Waves Consulting and is attached as an accompanying document. The report assessed the development using the following guidelines:

- NSW Noise Policy for Industry (NPI) 2017
- NSW Road Noise Policy (RNP), NSW EPA 2011
- Assessing Vibration: a technical guideline (DEC 2006).

Noise modelling of the site was undertaken using SoundPLAN modelling software. It was constructed using a combination of aerial photography, existing ground topography and design masterplans for the site. The local terrain, design of the development, receiver buildings and structures were digitised in the model to develop a 3D representation of the operations and surrounding environment. These noise parameters were defined in the noise model to calculate noise levels at the closest sensitive receptors in accordance with the limits described in development consent condition L4.1.

**Table 13 | Summary of DA2019/143 Clause L4.1 Noise Limits**

| Residential Receiver | Address                   | Noise Limit – Day LAeq,15min |
|----------------------|---------------------------|------------------------------|
| R1                   | 68 Tumblong Reserve Road  | 40                           |
| R2                   | 108 Old Hume Highway      | 40                           |
| R3                   | 419 Old Hume Highway      | 40                           |
| R4                   | 346 Old Hume Highway      | 40                           |
| R5                   | 355 Tumblong Reserve Road | 40                           |

The traffic noise associated with the development was modelled in accordance with the following Road Noise Policy criteria by the EPA 2011:

- Freeway / arterial / sub-arterial roads: 55LAeq,15hr (day) and 50LAeq,9hr (night)
- Local roads: 55LAeq,1hr (day) and 50LAeq,1hr (night)

The Hume Highway has been noted to likely already exceed this criterion therefore, the allowable increase in noise due to traffic from the proposal must not exceed 2dB.

##### 5.4.1. Assumptions

Several assumptions related to noise emissions were highlighted by the findings related to meteorological and operational conditions.

For all meteorological conditions, the worst-case wind direction for each receiver was assessed during the day / evening with light winds up to 3m/s at 10m above ground level (AGL) and nighttime winds of up to 2m/s at 10m AGL. This is intended to provide a conservative prediction of potential noise impacts at surrounding receivers.

Operational scenarios used in the model were completed in accordance with current approved hours including Monday to Friday (7AM to 5PM) and Saturday (7AM to 1PM). Noise sources during the worse-case 15-minute period of these hours included:

- Materials handling / stockpiling: Volvo L120 front end loader and Volvo 360 excavator operating at maximum engine revs 100% of the time. Hino Watercart (10000L), Moxy and Compactor operating at full load 50% of the time. All vehicles were assumed to move throughout the site.
- Deliveries / truck movements: Up to two (2) truck and dogs moving throughout the site at maximum engine revs 50% of the time.

It is noted that a noise source can contain certain characteristics such as tonality, intermittency, irregularity, or dominant low-frequency content which could cause greater annoyance than other noise sources at the same level. All of the noise sources within the NVIA has been assessed based on available noise data which do not demonstrate any annoying characteristics.

#### 5.4.2. Operational Assessment

Modelling results indicate that noise generated from the increase in processing capacity will remain compliant at all identified sensitive receptors at all times.

**Table 14 | Predicted Operational Noise Levels**

| Location | Worse Case LAeq,15m | Clause L4.1 Exceedance LAeq,15m |
|----------|---------------------|---------------------------------|
| R1       | 40                  | 0                               |
| R2       | 37                  | 0                               |
| R3       | 28                  | 0                               |
| R4       | 33                  | 0                               |
| R5       | <20                 | 0                               |

#### 5.4.3. On-Road Noise Emissions

On-road noise emissions were carried out for the proposal and reflect a conservative assumption based on the RNP assessment criteria. The predicted noise levels on Tumblong Reserve Road and Old Hume Highway are satisfied on all accounts as outlined in the table below.

Table 15 | Predicted On-Road Noise Levels

| Road                         | Future Volume Per Day | Future Percentage Heavy Vehicles % | Road Type | RNP Assessment Criteria       | Estimated Future Noise Level | Increase in Noise Levels (dB) | Complies |
|------------------------------|-----------------------|------------------------------------|-----------|-------------------------------|------------------------------|-------------------------------|----------|
| <b>Tumblong Reserve Road</b> | < 60                  | 44                                 | Local     | 55 LAeq,1hr (Day)             | < 20 LAeq,1hr (Day)          | None                          | Yes      |
| <b>Old Hume Highway</b>      | < 140                 | 23                                 | Local     | 55 LAeq,1hr (Day)             | < 35 LAeq,1hr (Day)          | None                          | Yes      |
| <b>Hume Highway</b>          | 10,917                | 34                                 | Arterial  | 55 LAeq,15hr (Day) + max. 2dB | > 55 LAeq,15hr (Day)         | < 0.5                         | Yes      |

The site does not propose to operate at nighttime hours and consequently, any traffic noise impacts will be nil from 11PM-7AM.

#### 5.4.4. Vibration Assessment

The offset distances between the vibrationally intensive equipment and the sensitive receivers is over 500m. The potential for vibration impacts due to the modification have been assessed as effectively nil therefore, all vibration criteria with respect to cosmetic damage to buildings and human comfort impacts are considered satisfied.

#### 5.4.5. Mitigation Measures

The NVIA identifies that the modification will comply with all noise criterion and does not propose any mitigation measures. It is considered that the proposal can be sufficiently accommodated by the existing procedures outlined in the Environmental Management Plan and Transport Management Plan prepared by InSitu Advisory.

### 5.5. Visual Amenity

A Visual Impact Assessment was undertaken as part of the original EIS which identified minimal impact on local visual amenity. No changes to the approved use or infrastructure are proposed on site therefore, visual amenity impacts remain consistent with the original assessment.

### 5.6. Bushfire

A Bushfire Risk Assessment has previously been conducted. No impacts to current bushfire impacts are expected as no additional physical works are proposed on site. The modification will remain in accordance with the current Bushfire Management Plan as implemented.

### 5.7. Biodiversity

No vegetation removal is required to facilitate the proposal and the land is not mapped as pertaining to high biodiversity matters. The conclusions of the original BDAR remain relevant that the proposal is unlikely to significantly impact on any MNES.

A total of three ecosystem credits and 18 species credits were required to offset the original clearing for the proposal. These were paid as part of a condition of consent. No further clearing is required and operations will continue to be in accordance with the current Biodiversity Management Plan as implemented.

### 5.8. Heritage

An Environment and Heritage Aboriginal Archaeological Impact Assessment was conducted which found no significant Aboriginal sites. No European heritage items are known on the site, which has been disturbed by past activities. The increase in processing operations does not require the expansion of the site or any new activities to be undertaken.

The proposed modification remains in accordance with the original report and does not extend beyond the parameters assessed in the OzArk assessment therefore, no further archaeological assessment is deemed necessary. Ongoing due diligence and staff training for the recognition of heritage items will continue to occur throughout the operation of the facility.

### 5.9. Socio-Economic

The development will have an overall positive social impact as it will benefit local and regional road construction projects and enhance public infrastructure. Given the location and existing nature of the proposed works, the development will not create any adverse social impacts such as noise, traffic, odour or visual appearance.

### 5.10. Assessment Summary and Mitigation Measures

The detailed environmental assessment of the proposed increase in processing capacity, including all specialist reports discussed above, has determined that there will be an insignificant to no cumulative impact on key environmental indicators for the catchment and local area as a consequence of the proposal.

A summary of mitigation measures is presented in the below table.

**Table 16 | Summary of Mitigation Measures**

| Impact Criteria                      | Mitigation Measures                                                                                                                                                                                                                                                            |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Traffic and transport</b>         | <p>Minimal impacts anticipated regarding traffic as outlined in the TIA. No mitigation measures recommended within specialist reports.</p> <p>Traffic processing operations to remain in accordance with the existing <i>Transport Management Plan</i> by Insitu Advisory.</p> |
| <b>Surface water and groundwater</b> | <p>Minimal impacts are anticipated regarding water systems.</p> <p>Maintenance of stormwater and leachate systems are to remain</p>                                                                                                                                            |

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | <p>in accordance with existing environmental management and pollution response plans:</p> <ul style="list-style-type: none"> <li>• <i>Environmental Management Plan</i> prepared by Insitu Advisory</li> <li>• <i>Air Quality Management Plan</i> prepared by Northstar</li> <li>• <i>Leachate Management Plan</i> prepared by InSitu Advisory</li> </ul>                                                                                |
| <b>Air quality and odour</b> | <p>Minimal impacts are anticipated regarding odour as outlined in the accompanying AQIA. Operational activities are to remain in accordance with the existing plans:</p> <ul style="list-style-type: none"> <li>• <i>Environmental Management Plan</i> prepared by Insitu Advisory</li> <li>• <i>Air Quality Management Plan</i> prepared by Northstar</li> <li>• <i>Leachate Management Plan</i> prepared by InSitu Advisory</li> </ul> |
| <b>Noise and vibration</b>   | <p>Minimal impacts are anticipated regarding odour as outlined in the NIA. Operational activities are to remain in accordance with the <i>Environmental Management Plan</i> prepared by Insitu Advisory.</p>                                                                                                                                                                                                                             |
| <b>Visual</b>                | <p>No changes to visual impact as existing. No mitigation measures necessary. Site to be maintained in accordance with operational plans.</p>                                                                                                                                                                                                                                                                                            |
| <b>Bushfire</b>              | <p>Site to be maintained and operated in accordance with existing <i>Bushfire Management Plan</i>.</p>                                                                                                                                                                                                                                                                                                                                   |
| <b>Biodiversity</b>          | <p>No impacts anticipated regarding biodiversity. Site to be maintained in accordance with the existing <i>Biodiversity Management Plan</i> prepared by InSitu Advisory.</p>                                                                                                                                                                                                                                                             |
| <b>Heritage</b>              | <p>No impacts anticipated regarding heritage. Site to be maintained in accordance with operational plans and ongoing due diligence.</p>                                                                                                                                                                                                                                                                                                  |
| <b>Socio-economic</b>        | <p>Ongoing communication by the site operator to the local community.</p> <p>Operation of the facility in accordance with operational management plans.</p> <p>Employment of local workforce, trades and service personnel expected to be positive.</p>                                                                                                                                                                                  |

## 6. Conclusion

The modification seeks approval for changes to the processing limitations for the Tumblong landfill facility at Tumblong Reserve Road in Tumblong. The modification seeks to increase to the overall processing capacity of the facility from 60,000 tpa to 99,000 tpa.

Consultation was undertaken with Cootamundra-Gundagai Regional Council (CGRC) and the Environment Protection Authority (EPA) with the relevant considerations included and addressed throughout the modification report.

The report addresses the rationale for the requested increases in processing and throughput and identifies the expected environmental and operational implications of the proposed modification. It confirms the proposed increase in production utilises existing plant and equipment with no changes to production operations, layouts, plant and equipment or management processes. The increase in processing will ultimately see increases in deliveries and truck movements at the site with no adverse impacts are identified.

The increased processing capacity will allow for more waste to be delivered directly from Visy Pulp and Paper Mill to ensure the continued operational viability of the facility and to align with broader waste management objectives. By allowing the landfill to reach its approved volumetric capacity, the proposal facilitates more efficient site utilisation and enables earlier capping, rehabilitation and post-closure use to a natural rural landscape.

In light of the above considerations, it is our opinion that the proposal is appropriate from a planning point of view and is in the public interest. The proposed development warrants support by the consent authority.