

Environmental Impact Statement- Proposed Metal Recycling Facility

Sydney Metal Traders Pty Ltd



Prepared for Sydney Metal Traders Pty Ltd
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Note that in accordance with the Land and Environment Court Practice Note (2025) *Use of Generative Artificial Intelligence (Gen AI)*, we declare that Gen AI has not been in the preparation of this report.

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Executive Summary

This Environmental Impact Statement (EIS) has been prepared by JEP Environment & Planning on behalf of Sydney Metal Traders Pty Ltd for the proposed development of a metal recycling facility (the Facility/Proposal) located at 88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP 251779) (the Site). The Site, situated east of the township of Goulburn, comprises approximately 32.3 hectares of land zoned E4 General Industrial under the *Goulburn Mulwaree Local Environmental Plan 2009*. The proposed Facility will occupy an approximately 7.7 ha portion of land along the western boundary of the Site.

The development involves the receipt, sorting, cutting, shredding, and bulk transport of scrap metals for recycling into new products. Operations will occur in buildings or hardstand areas with associated supporting infrastructure including offices, workshops, and staff amenities.

Key components of the proposed development include:

- **Receipt and Sorting Areas:** Bays for tipping, inspection, and initial segregation of incoming metals;
- **Pre-shredding and Shredding Zones:** Equipped with pre-shredders, hammermill shredders, stationary shears, and oxy-cutting facilities;
- **Post-Processing Separation Facility:** Bays for separation, recovery, and temporary storage of ferrous and non-ferrous metals;
- **Administrative Infrastructure:** Conversion of the existing cottage into office and amenity space, including staff parking;
- **Workshop and Maintenance Shed:** A fully enclosed 32 m × 15 m × 12 m building for plant maintenance and operations;
- **Mobile and Stationary Equipment:** Loaders, shears, conveyors, radiation detection systems, and sorting equipment;
- **Weighbridges:** Two entry/exit weighbridges and one internal weighbridge for load management;
- **Fuel Storage:** A 50,000 L self-bunded diesel tank installed on a concrete hardstand with bunding and rain cover;
- **Landscaping and Screening:** A 20 m-wide landscaped setback along the western and southern boundaries;
- **Traffic Management and Site Circulation** – Paved hardstand access ways using existing access points with the addition of a new exit closer to the Hume Highway to minimise impacts on local roads and residential areas;
- **Intersection Upgrades** – To improve safe intersection sight distances (SISD), accommodate anticipated turning volumes, and provide a safe environment for both light and heavy vehicles accessing the Site, the following intersection and turning upgrades are proposed:
 - A channelised left-turn lane (CHL) is to be constructed at the northern intersection (for eastbound traffic). The CHL will improve safe intersection sight distance (SISD) for vehicles approaching the Hume Highway from Murrays Flat Road. CHL to be 185 metres, including chevron line marking for guidance;
 - A channelised right-turn lane (CHR) is to be constructed at the southern intersection (for westbound traffic) from the Hume Highway (westbound) into Murrays Flat Road. CHR to be 185 metres, in compliance with Austroads standards;
 - The right-turn movement from Murrays Flat Road onto the Hume Highway will be prohibited for all vehicles, along with any U-turn movements for eastbound vehicles intending to travel back towards Goulburn;
 - Installation of a median island to guide traffic and prevent right-turn movements from Murrays Flat Road (towards the west);

- Construction of a 1.0-metre-wide median island on Murrays Flat Road, offset by 1.0 metre from the Hume Highway, to separate inbound and outbound traffic and provide safe clearance; and
- Installation of regulatory signage and line marking to prohibit right-turn movements from Murrays Flat Road;
- Renewable Energy Infrastructure – The Facility will incorporate rooftop solar photovoltaic (PV) panels installed on the Workshop and Maintenance Shed, with power stored via an integrated Battery Energy Storage System (BESS);
- Wastewater system upgrades for on-site effluent treatment and disposal; and
- Stormwater Management – All operational areas will be constructed of compacted road base incorporating HDPE liners beneath operational areas, stormwater capture systems, and detention basins. The stormwater management system is designed to progressively capture and treat runoff through a series of infrastructure elements.

The proposed Facility will receive and process up to 30,000 tonnes of scrap metal per annum. As the Site lies within the Sydney Drinking Water Catchment, the development is classified as Designated Development under Clause 45(4)(c) of Schedule 3 of the *Environmental Planning and Assessment Regulation 2021*. The Proposal also qualifies as Regionally Significant Development because it is a waste or resource management facility and has an estimated capital investment value of \$5 million as per Clause 5(a) of Schedule 6 of the *State Environmental Planning Policy (Planning Systems) 2021*.

A previous set of Secretary's Environmental Assessment Requirements (SEAR 1819) were issued for the Proposal. However, due to the lapsing of the two (2)-year application submission deadline, a new SEARs request was made. The revised SEARs are largely consistent with the original requirements, with only minor updates introduced, primarily relating to the geotechnical, traffic, and flora and fauna assessment components.

This EIS has been prepared in accordance with the updated SEAR 2038 issued on 13 November 2025 by Ms. Joanna Bakopanos, Director, Industry Assessments, DPHI.

This EIS aims to:

- Identify constraints influencing development on the Site;
- Evaluate environmental, social, and economic impacts of the Proposal; and
- Assess the Site's capability to accommodate the Facility.

This EIS assesses the social, environmental, and economic impacts of the Proposal and identifies mitigation measures to ensure sustainable development outcomes. It also comprehensively addresses both the requirements set forth in SEAR 2038 and the pre-lodgement minutes (FWA/0042/2122, dated 24 February 2022) issued by Goulburn Mulwaree Council providing advice regarding assessment of the Proposal.

The land is zoned E4 – General Industrial under the *Goulburn Mulwaree Local Environmental Plan 2009* (LEP), and the development footprint of the Site occurs entirely within this zoning. The Proposal is considered a type of “waste or resource management facility”, which is not prohibited in E4 zoning and is therefore permitted with consent.

The Proposal is consistent with the definition of ‘Scrap metal processing’ as per Clause 26(1) of Schedule 1 of the *Protection of the Environment Operations Act 1997*: The Proposal will process less than 150 tonnes per day of scrap metal and less than 30,000 tonnes per year and is therefore under the thresholds for ‘Scrap metal processing’ provided in Schedule 1, Clause 26(2) of the *Protection of the Environment Operations Act 1997*. An Environment Protection Licence (EPL) is therefore not required (as long as thresholds are not exceeded).

Sydney Metal Traders Pty Ltd is committed to achieving full regulatory compliance and obtaining all necessary development approvals and environmental licences prior to commencement.

Summary of the Environmental Assessment

Noise and Vibration Impact Assessment

A Noise and Vibration Impact Assessment prepared for this EIS has assessed potential construction and operational noise impacts using EPA guidelines and has found that predicted sound levels at surrounding receptors would comply with relevant noise and vibration criteria. Mitigation measures include acoustic barriers, restricted hours of operation, and use of low-noise equipment. Vibration impacts were assessed as negligible given the separation distances to sensitive receivers. Overall, the facility will operate within acceptable noise and vibration limits.

Wastewater Assessment

A Wastewater Management Report prepared for this EIS assessed the design and suitability of on-site wastewater systems for the proposed metal recycling facility. Given the lack of access to reticulated sewer infrastructure, the report proposes an advanced aerated wastewater treatment system and effluent disposal via sub-surface irrigation within landscaped areas. Hydraulic loading rates and soil permeability testing confirmed adequate treatment and disposal capacity for the Site's staff numbers and operational requirements. The proposed system complies with the NSW Health and Council On-site Sewage Management Guidelines and will ensure no adverse impact on groundwater or surface water quality.

Visual Impact Assessment and Landscaping

A Visual Impact Assessment prepared for this EIS assessed the visual character of the proposed facility and found that it will have a low visual impact due to its siting within an industrial zone, significant separation from residential areas, and inclusion of 20-metre-wide landscaped buffer. The design and landscape screening measures will effectively integrate the Facility into the existing rural-industrial landscape.

Traffic and Parking Impact Assessment

A Traffic and Parking Impact Assessment prepared for this EIS evaluated existing and future road conditions and found that the proposed facility will generate a modest increase in vehicle movements, primarily heavy trucks, but will not have adverse impacts on existing traffic, parking conditions or access amenities of the area. The upgraded Site access and exit points, together with intersection improvements at the intersection of the Hume Highway and Murrays Flat Road, will ensure safe and efficient operation. The parking and access demand resulting from the Proposal can be easily accommodated within the proposed parking spaces and loading/unloading facilities. Compliant on-site parking and circulation have been designed and provided. The impacts on Murrays Flat Road and the Hume Highway network are considered acceptable and all matters and issues raised by Transport for NSW and in the SEARs have been resolved.

Stormwater Assessment

A Water Cycle Management Study prepared for this EIS modelled the stormwater quality and quantity using MUSIC software. Results show that the proposed system including sediment basins, oil-water separators, and biofiltration measures achieves a neutral or beneficial effect on downstream water quality in accordance with the relevant Water NSW and Council guidelines. The Facility also includes measures for groundwater protection using HDPE liners under operational areas. The study confirms the Proposal is compliant with the Neutral or Beneficial Effect (NorBE) requirements for the Sydney Drinking Water Catchment.

Geotechnical Assessment

A Geotechnical Investigation Report prepared for the EIS assesses the Site conditions, including soil, groundwater, earthworks, pavements and footing suitability, to determine whether the Site can support the proposed recycling facility development. The investigation found that the Site generally consists of reactive clay soils over weathered bedrock, with no significant slope instability or groundwater issues identified. Overall, the report concludes that the Proposal is feasible from a geotechnical perspective provided appropriate earthworks, foundation design and erosion control measures are implemented during construction.

Air Quality Assessment

An Air Quality Assessment prepared for this EIS concluded that predicted emissions from shredding, cutting, and processing activities will comply with EPA criteria under normal and worst-case meteorological conditions. Dust suppression, enclosure of emission sources, and stormwater controls will effectively mitigate potential impacts from

particulate matter due to construction and operation of the Proposal. The assessment determined that the Proposal will not cause exceedances of ambient air quality goals at nearby sensitive receptors.

Preliminary Site Investigation

A Preliminary Site Investigation prepared for this EIS identified no evidence of significant contamination across the site. Soil and groundwater sampling confirmed that contamination levels are below guideline thresholds, indicating the land is suitable for the proposed industrial use subject to remediation and offsite disposal of the small oil spilled area inside the service shed, and removal of the stockpiled soil and waste material and validation of the footprint. Recommendations included maintaining erosion and sediment controls during construction and proper management of fuels and oils to prevent future contamination during construction and operation of the Proposal.

Waste Management Plan

A Waste Management Plan (WMP) prepared for this EIS outlines measures for the avoidance, reuse, recycling, and lawful disposal of waste during construction and operation of the Proposal. Construction waste will be segregated on-site for resource recovery at nearby recycling facilities. The Proposal is predicted to achieve an estimated 99% recycling rate during construction. During operations, the Facility will receive up to 30,000 tonnes per annum of ferrous and non-ferrous metals, with recovered products sent off-site for further recycling. Residual floc and non-recyclable materials will be securely stored before lawful disposal at licensed facilities. Environmental controls to be implemented on-site include spill response systems, sealed surfaces, groundwater protection using HDPE liners under operational areas, stormwater treatment, and record-keeping protocols. The WMP demonstrates compliance with EPA and Goulburn Mulwaree Council waste management standards and contributes to *NSW Waste and Sustainable Materials Strategy 2041* objectives.

Fire Safety Study

A Fire Safety Study (FSS) prepared for the EIS in accordance with HIPAP No. 2 and FRNSW (2020) guidelines, assesses fire risks associated with metal storage and processing. The FSS concluded that the proposed design and fire protection measures will be sufficient to adequately manage risk and respond to potential incidents. The FSS recommendations include thermal detection for stockpiles, regular isolation valve testing, and operator fire training, smoke or fire detection measures, fire hydrants, reels and extinguishers, separate firewater supply tanks, mandatory operator fire training and emergency response plans.

Bushfire Assessment

The Site lies partially within bushfire-prone land. A Bushfire Risk Assessment prepared for the EIS evaluated the Proposal's compliance against *Planning for Bushfire Protection* (2019) and determined that the overall bushfire risk is low due to the separation distance between operational areas and hazard vegetation, existing cleared buffers, and proposed on-site firefighting infrastructure. An asset risk register has been developed along with measures to maintain asset protection zones, ensure adequate water supply and firefighting infrastructure is available at all times. The Proposal will ensure that adequate staff resources are on-site to help suppress small fires and undertake some additional preparations during extreme to catastrophic fire weather conditions (e.g. no hot-works).

Aboriginal Heritage Assessment

An Aboriginal Heritage Assessment prepared for the EIS concluded that no known Aboriginal sites or objects occur within the Proposal area and the likelihood of encountering intact cultural deposits is low and no further archaeological investigation or AHIP is required prior to works. The due diligence process was conducted in accordance with the *National Parks and Wildlife Act 1974* and the *Due Diligence Code of Practice* (2010).

Biodiversity Assessment

The Biodiversity Assessment prepared by Hayes Environmental determined that the Site is predominantly comprised of modified exotic pasture with only small areas of native vegetation present, including isolated trees and small patches of native grassland associated with PCT 3373 Goulburn Tableland Box-Gum Grassy Forest, which is linked to the critically endangered White Box – Yellow Box – Blakely's Red Gum Grassy Woodland ecological community under the *NSW Biodiversity Conservation Act 2016*. No threatened plant species are known or likely to occur and no threatened fauna species are known to breed or reside within the subject land. The Proposal will require only a small amount of native vegetation clearing (approximately 0.16ha), with the design seeking to retain native trees where practical. The assessment concluded that no threatened flora or fauna species are likely to be significantly impacted by the development and that impacts can be effectively managed through mitigation measures including vegetation retention, erosion and sediment controls, and landscaping. Importantly, the

Biodiversity Offset Scheme does not apply to the proposal, therefore a Biodiversity Development Assessment Report (BDAR) is not required, and biodiversity offsets are not triggered.

Energy Assessment SEPP (Sustainable Buildings) 2022

A Sustainability Assessment prepared for the EIS demonstrates compliance with Section 3.2 of the *State Environmental Planning Policy (Sustainable Buildings) 2022* for the Proposal. The design integrates energy-efficient equipment, renewable energy opportunities, water-saving fixtures, stormwater capture and reuse, and construction waste minimisation strategies. The Facility's operations and layout promote reduced energy demand, sustainable material use, and responsible management of embodied emissions, aligning with NSW's sustainability targets.

Risk Screening Assessment

A risk screening assessment in accordance with Chapter 3 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* has been prepared for this EIS to review the Facility's operations and storage of materials. The study determined that none of the Site's processes or storage activities meet the thresholds for classification as "potentially hazardous" or "offensive" development. Accordingly, the Proposal does not require a Preliminary Hazard Analysis under HIPAP No. 6. The assessment concluded that the Facility poses negligible off-site risk to people, property, or the environment and is suitable for construction and operation.

Flood Study

A Local Flood and Overland Flow Study prepared for the EIS modelled 10%, 5%, and 1% AEP rainfall events to assess flood behaviour on the site. The Site falls within Flood Planning Constraint Category 4 (FPCC4), indicating low flood risk and minimal restrictions for industrial development. The Site is partly affected by probable maximum flood extents of the Wollondilly River but lies outside the 1% AEP flood planning area. The study demonstrated that the Proposal would not exacerbate flood impacts on surrounding properties and may slightly reduce peak flow rates through improved drainage design.

Conclusion

Sydney Metal Traders Pty Ltd are seeking approval for a proposed metal recycling facility that involves the receipt, sorting, cutting, shredding, and bulk transport of scrap metals for recycling into new products. The Proposal is a well-designed, environmentally responsible, and economically beneficial development that aligns with regional planning objectives and State policy directions.

The Proposal represents a significant investment in regional waste management infrastructure, providing long-term environmental, economic, and operational benefits for the Goulburn Mulwaree LGA and the broader Southern Tablelands region. The Proposal supports the circular economy by enabling the recovery, sorting, and recycling of ferrous and non-ferrous metals, thereby diverting waste from landfill and contributing to state and national waste reduction targets.

By establishing a dedicated metal recycling operation in Towrang, it will reduce the need to transport recyclable materials to metropolitan Sydney for processing, lowering associated freight costs, travel emissions, and vehicle kilometres travelled. This contributes to a reduction in overall greenhouse gas emissions consistent with the objectives of the *NSW Waste and Sustainable Materials Strategy 2041* and the *EPA Strategic Plan 2024–29*, which prioritise regional waste processing capacity and the recovery of valuable resources close to source.

The development represents an estimated \$26,994,466 (ex. GST) capital investment, supporting approximately ten (10) jobs during the construction phase over a 6-month period, and generating fifteen (15) new ongoing operational roles upon completion. This will provide direct employment opportunities for local residents and generate indirect benefits through local supply chains, maintenance services, and transport operators. The Proposal will therefore make a measurable contribution to the local and regional economy, supporting economic resilience and growth within the Southern Tablelands.

The Proposal also includes stormwater management infrastructure such as detention and sediment basins and grassed swales to ensure runoff is effectively controlled and treated prior to discharge. Groundwater is also protected via a proposed HDPE lining under operational areas. These features support improved water quality outcomes and contribute to the ecological sustainability of the Site whilst meeting Water NSW requirements for Neutral or Beneficial Effect within the Sydney Drinking Water Catchment.

The Proposal supports the *Goulburn Mulwaree Local Environmental Plan 2009* objectives for the E4 General Industrial zone, which encourages the establishment of industries that support employment, are compatible with

adjoining land uses, and do not adversely affect the amenity of surrounding areas. The Proposal also aligns with the objectives of the *NSW Waste and Sustainable Materials Strategy 2041* to increase recycling rates, promote resource recovery, and strengthen regional waste infrastructure capacity.

If approved, the Proposal will represent an important piece of regional infrastructure supporting a circular economy approach to waste management. It will deliver long-term environmental benefits, provide new employment opportunities, strengthen the local economy, and ensure the sustainable recovery of valuable materials within the Southern Tablelands region.

With the implementation of the identified mitigation and management measures, the Proposal is recommended for approval.

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1. Introduction

1.1. Project Overview

This Environmental Impact Statement (EIS) has been prepared for a proposed metal recycling facility at 88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP251779). The development will receive scrap metal, shred and separate the recovered metals for transport off-site for further recycling (the Proposal/Facility). Operations will be carried out on an area of approximately 7.7 hectares (the Site) out of a total lot area of 32.3 hectares.

The proposed scrap metal processing will be carried out in designated operating areas. Equipment used for the metal processing activities will comprise oxy-cutting, stationary shear, pre-shredder, shredder (hammermill), and downstream separation and sorting equipment.

Around 3% of incoming scrap metal will be processed off Site or does not require further processing and is received in a form ready for on-sale. This material includes Copper, Brass, Aluminium, Stainless Steel, Electric Motors, Used Lead Acid Batteries (ULABs) and Lead. Separate waste storage bays will be provided to store sorted and shredded metals prior to being loaded onto trucks for off-site recycling. The waste generated during operations will be safely and lawfully disposed at a licensed landfill.

The Site will include stormwater and wastewater management upgrades along with paved access, sealed hardstand operational areas, landscaping and parking and amenities for staff.

A set of intersection and turning upgrades are also proposed to improve safe intersection sight distances (SISD), accommodate anticipated turning volumes, and provide a safe environment for both light and heavy vehicles accessing the Site.

A full and detailed description of the Proposal is provided in Section 2.

1.2. Applicant details

Sydney Metal Traders is a scrap metal recycling company with existing locations in Sydney and surrounds. They accept and process a wide range of scrap metals, ranging from simple brass and steel to metal by-products of large demolitions. They support the circular economy through the use of efficient recycling technologies and by making scrap disposal easy for businesses.

Table 1.1 provides contact details for the proponent.

Table 1.1. Sydney Metal Traders contact information.

Company	Sydney Metal Traders
Contact	Mr Ahmed Abdulkhalek
Postal Address	15-21 Claremont Ave, Greenacre NSW 2190
Phone	0433 190 056
Email	ahmed@sydneymetaltraders.com.au

The Site is registered to Towrang Investments Pty Ltd. Owner's consent to lodge a development application on the land is provided in Appendix 22.

1.3. Purpose of the EIS

This EIS has been prepared for a metal recycling facility at 88 Murrays Flat Road, Towrang NSW. The purpose of this EIS is to:

- Identify all constraints affecting future development on the Site;
- Consider the economic, social, and environmental impacts of the Proposal; and
- Assess the capability of the Site to support the Proposal.

Under the *Goulburn Mulwaree Local Environmental Plan 2009*, the development of a resource recovery facility is permitted on E4 zoned lands. The Proposal is also consistent with the provisions of the *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

The proposed development will trigger the requirement for Designated Development under Clause 45(4)(c) of Schedule 3 of the *Environmental Planning and Assessment Regulation 2021*. This is due to the Proposed Development being located in the Sydney Drinking Water Catchment.

1.4. The Site

The Site is located at 88 Murrays Flat Road, Towrang, within the Goulburn Mulwaree Local Government Area (LGA) in a rural environment approximately 190 km south-west of Sydney by road. The total area of the property is 32.3 hectares, with the proposed development to be contained within an area of approximately 7.7 hectares. The surrounding locality is predominantly rural-residential in character, with isolated dwellings located within a 2.25 km radius of the Site. The Site currently contains an existing residential building, proposed to be repurposed for use as administrative offices. A compacted road base will provide access to this building. The office building will be located away from the operational areas of the Site to ensure the safety of non-operational staff.

The proposed development comprises a metal recovery and recycling facility. The Facility is designed to receive, sort, and process scrap metal into a range of product streams suitable for both domestic and international recycling markets and end users. Scrap metal will be sourced from Sydney, the Southern Highlands, Goulburn, the ACT, and surrounding regions. Metal processing activities will be confined to designated operational areas and will involve the use of specialised equipment, including oxy-cutting tools, a stationary shear, a pre-shredder, a shredder (hammermill), and downstream separation and sorting equipment.

The Site has access to high-voltage power, and a pad-mount substation is proposed to be installed to meet energy demands. The property is not connected to Council's water or sewerage networks, and as such, an on-site effluent management system will be required.

An aerial image showing the general locality of the Site is provided in Figure 1.1. The Site is zoned E4 General Industrial, as indicated in Figure 1.2, and the proposed site layout is shown in Figure 1.3.

1.5. Site History and Approvals

The Site has only one record of development approval history. On 12 May 2008, a Section 96(1a) modification was approved involving the removal of Deferred Condition 1, which was replaced with a condition issued by the Roads and Traffic Authority (RTA).

The application was submitted under reference MOD/0068/0708 for the Site (see Table 1.2). The applicant was Eureka 1 Project 13 Pty Limited, with Tim Lee Architects listed as project representatives.

Table 1.2 Development consents granted for the property at 88 Murrays Flat Road, Towrang NSW 2580.

DA number	Description	Date approved	DA status
MOD/0068/0708	Sec 96 (1a) Minor Environmental Impact To remove deferred condition 1 to be replaced with RTA condition.	12/05/2008	Approved

1.6. Easement and Covenant

A 20m wide right of carriageway located on the northern border of the Site will be maintained. No development is proposed in the easement. The Site is legally described as Lot 3 in Deposited Plan 251779, located at Murray's Flats in the Goulburn Mulwaree Local Government Area, and is registered to Towrang Investments Pty Ltd.

1.7. Existing and continuing use rights / agreements

The proposed development will not rely on any existing use rights for the land.

1.8. Project Team

In preparing this EIS, JEP Environment & Planning has undertaken all statutory planning assessments, as well as prepared the relevant assessment sections of the EIS.

JEP Environment & Planning supported Sydney Metal Traders in delivering the Community Consultation Plan (refer to section 5 of EIS) and has engaged with the following stakeholders during development of the EIS:

- NSW Environment Protection Authority;
- Department of Regional NSW;
- Transport for NSW;
- Fire and Rescue NSW;
- NSW Rural Fire Service;
- SafeWork NSW;
- Goulburn Mulwaree Council;
- PEJAR Aboriginal Land Council;
- Goulburn Mulwaree Landcare Landscapes;
- Goulburn Chamber of Commerce;
- WaterNSW; and
- The neighbouring businesses and landowners / occupiers within approximately 2km of the Proposal.

We also engaged a project team to undertake the design and specialist investigations for the EIS. The role/s of each team member is given below:

- Architectural Plans – JEP Environment & Planning;
- Noise and vibration impact assessment – RWDI Consulting Engineers and Scientists;
- Wastewater Report – SOWDES;
- Landscape Concept Design – Terras Landscape Architects;
- Visual impact assessment - Terras Landscape Architects;
- Traffic impact assessment – Hemanote Consultants;
- Stormwater Assessment – SOWDES;
- Air Quality Assessment – Northstar Air Quality;
- Preliminary Hazard Assessment - Riskcon Engineering;
- Estimate Development Cost – Napier & Blakeley;
- Fire Safety Study – Riskcon Engineering;
- Bushfire Assessment – SOWDES;
- Aboriginal heritage Assessment – Artefact Heritage Services;
- Biodiversity Assessment – Hayes Environmental;

- Energy assessment (SEPP Sustainable Buildings) 2022 – Piechowski Energy; and
- *State Environmental Planning Policy (Resilience and Hazards) 2021* – Riskcon Engineering.

A letter of owner's consent for the Proposal is provided in Appendix 22.

1.9. SEARs Requirement Compliance Table

A scoping report was prepared and submitted to the Department of Planning and Environment requesting the Secretary's Environmental Assessment requirements (SEARs) in October 2025. The SEARs requirements were issued on 13 November 2025 by Ms Joanna Bakopanos, Director, Industry Assessments, Department of Planning, Housing and Infrastructure (DPHI), as a delegate of the Secretary. This EIS report addresses the NSW Department of Planning and Environment's SEAR 2038.

Table 1.3 below outlines how the SEAR's requirements have been addressed in this EIS.

Table 1.3. Overview of how the SEAR 2038 requirements have been addressed in this EIS.

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
General requirements	The Environmental Impact Statement (EIS) must comply with the assessment requirements and meet the minimum form and content requirements in sections 190 and 192 of the <i>Environmental Planning and Assessment Regulation 2021</i> .	This EIS.
Key Issues	The EIS must include an assessment of all potential impacts of the proposed development on the existing environment (including cumulative impacts if necessary) and develop appropriate measures to avoid, minimise, mitigate and/or manage these potential impacts. As part of the EIS assessment, the following matters must also be addressed:	This EIS
	Strategic and statutory context – including: • a detailed justification for the Proposal and suitability of the Site for the development	Section 3 Section 24
	• a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies	Section 3
	• a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out.	Section 3
	Suitability of the Site – including: • a detailed justification that the Site can accommodate the proposed handling capacity, having regard to the scope of the operations and its environmental impacts and relevant mitigation measures	Section 24
	• site/floor plans depicting the proposed Site layout, including the location of machinery and equipment.	Appendix 1 (Architectural Plan Set)
		Section 13.3

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
	Details of any proposed staging of construction and operation for the development	
	Waste Management – including: - details of the type, quantity and classification of waste to be received at the site - details of the resource outputs and any additional processes for residual waste - details of waste handling including, transport, identification, receipt, stockpiling and quality control - the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the <i>NSW Waste Avoidance and Sustainable Materials Strategy 2041</i>.	Section 13 of this EIS and Appendix 11 (Waste Management Plan).
	Hazards and risk – including: - a preliminary risk screening completed in accordance with <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>, Chapter 3 and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with <i>Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis</i> (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011). - any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations to address this - an assessment of flood risk on the Site. The assessment should determine: the flood hazard in the area; address the impact of flooding on the proposed development, and the development's impact (including filling) on flood behaviour of the Site and adjacent lands; and address adequate egress and safety in a flood event	Section 19 of this EIS and Appendix 17 (Hazard Risk Assessment). Section 10 of this EIS and Appendix 25 (Geotechnical Report). Section 20 of this EIS and Appendix 18 (Flood Study).
	Fire and incident management – including: - an assessment of bushfire risks and asset protection zones (APZ) in accordance with NSW Rural Fire Service guidelines - technical information on the environmental protection equipment to be installed on the premises such as air, water and noise controls, spill clean-up equipment, fire management (including the location of fire hydrants)	Section 15 of this EIS and Appendix 13 (Bushfire Assessment). Section 23 of this EIS and Appendix 1 (Architectural Plans) and Appendix 12 (Fire Safety Study)

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
	- and water flow rates at the hydrants) and containment measures - details of the size and volume of stockpiles and their arrangements to minimise fire spread and facilitate emergency vehicle access. - the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the NSW Fire and Rescue guideline <i>Fire Safety in Waste Facilities dated 27 February 2020</i>	Section 13 of this EIS and Appendix 11. Section 14 of this EIS and Appendix 12.
	Air quality and odour – including: a quantitative assessment of the potential air quality, dust and odour impacts of the development, during both construction and operation, in accordance with relevant Environment Protection Authority guidelines. a description and appraisal of air quality impact mitigation and monitoring measures.	Section 11 of this EIS and Appendix 9 (Air Quality Impact Assessment).
	Noise and vibration – including: - a description of all potential noise and vibration sources during construction and operation, including road traffic noise - a noise and vibration assessment in accordance with the relevant Environment Protection Authority guidelines - a description and appraisal of noise and vibration mitigation and monitoring measures.	Section 6 of the EIS and Appendix 3 (Noise and Vibration Impact Assessment).
	Soil and water – including: - a description of local soils, topography, drainage and landscapes - details of water usage for the Proposal including existing and proposed water licencing requirements in accordance with the <i>Water Act 1912</i> and/or the <i>Water Management Act 2000</i> - details of sediment and erosion controls - a detailed Site water balance - a description of water requirements and supply arrangements for construction and operation, as well as any measures proposed to ensure the development can operate in accordance with the requirements of any relevant water sharing plan or water source embargo - details of the proposed stormwater and wastewater management systems (including sewage), including any proposed application to land - a detailed assessment of potential impacts of the development on the quality and quantity of surface and groundwater resources consistent with	Section 10 of this EIS and Appendix 8 (Water Cycle Management Study) Section 7 of this EIS and Appendix 4 (Wastewater Assessment). Section 10 of this EIS and Appendix 8 (Water Cycle

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
	relevant guidelines, including details of any water consideration given to the Sydney drinking water catchment, Wollondilly River and associated tributaries • characterisation of the nature and extent of any contamination on the site and surrounding area • a description and appraisal of impact mitigation and monitoring measures.	Management Study) and Appendix 25 (Geotechnical Report) Section 12 of this EIS and Appendix 10 (Preliminary Site Investigation) Section 10 and 23 of this EIS and Appendix 8 (Water Cycle Management Study)
	Traffic and Transport – including: • a Transport Impact Assessment prepared in accordance with the Guide to Transport Impact Assessment (TfNSW, 2024), Austroads Guide to Traffic Management Part 12 and the complementary TfNSW Supplement • details of road transport routes and access to the Site • road traffic predictions for the development during construction and operation details of proposed supporting road upgrades • swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the Site as well as swept path analysis in Transport for NSW's attached letter • an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development.	Section 9 of this EIS and Appendix 7 (Traffic and Parking Impact Assessment)
	Biodiversity – including: • accurate predictions of any vegetation clearing on Site or for any road upgrades • a detailed assessment of the potential impacts on any threatened species, populations, endangered ecological communities or their habitats, groundwater dependent ecosystems and any potential for offset requirements • addressing any potential impacts from proposed facilitatory road upgrades on roadside vegetation, including on threatened bird species such as the Dusky Woodswallow and the Little Eagle • details of weed management during construction and operation in accordance with existing State, regional or local weed management plans or strategies	Section 17 of this EIS and Appendix 15 (Flora and Fauna Assessment).

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
	a detailed description of the measures to avoid, minimise, mitigate and/or offset biodiversity impacts.	
	Community and stakeholder engagement – including: - a detailed community and stakeholder participation strategy which identifies who in the community has been consulted and a justification for their selection, other stakeholders consulted and the form(s) of the consultation, including a justification for this approach - a report on the results of the implementation of the strategy including issues raised by the community and surrounding occupiers and landowners that may be impacted by the proposal - details of how issues raised during community and stakeholder consultation have been addressed and whether they have resulted in changes to the proposal - details of the proposed approach to future community and stakeholder engagement based on the results of the consultation.	Section 5 of this EIS and Appendix 2 (Community and Stakeholder Consultation Report).
	Visual – including an impact assessment at private receptors and public vantage points.	Section 8 of the EIS and Appendices 5 (Landscape Concept Plan) and 6 (Visual Impact Assessment)
	Heritage – including Aboriginal and non-Aboriginal cultural heritage.	Section 16 of the EIS and Appendix 14 (Aboriginal Heritage Assessment)
Environmental Planning Instruments and other Policies	The EIS must assess the Proposal against the relevant environmental planning instruments, including but not limited to: - State Environmental Planning Policy (Transport and Infrastructure) 2021 - State Environmental Planning Policy (Biodiversity and Conservation) 2021 - State Environmental Planning Policy (Resilience and Hazards) 2021 - Goulburn Mulwaree Local Environmental Plan 2009 - relevant development control plans and section 7.11 plans.	Section 3 and Section 4 of this EIS
Guidelines	During the preparation of the EIS you should consult the Department's Register of Development Assessment Guidelines which is available on the Department's website at https://www.planning.nsw.gov.au/Assess-and-Regulate/Development-Assessment/Industries. Whilst not exhaustive, this Register contains some of the guidelines, policies, and plans that must be taken into account in the environmental assessment of the proposed development.	Noted.

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
Consultation	During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the: • NSW Environment Protection Authority • Transport for NSW • Fire & Rescue NSW • WaterNSW • Pejar Local Aboriginal Land Council • Goulburn Mulwaree Council • the surrounding landowners and occupiers that are likely to be impacted by the proposal. Details of the consultation carried out and issues raised must be included in the EIS.	Section 5 of this EIS and Appendix 2 (Community and Stakeholder Consultation Report).
Further consultation after 2 years	If you do not lodge an application under Section 4.12(8) of the <i>Environmental Planning and Assessment Act 1979</i> within 2 years of the issue date of these SEARs, you must consult with the Planning Secretary in relation to any further requirements for lodgement.	Noted.

1.10. Agency Specific SEARs

As part of the SEAR 2038s issued by DPHI, a series of agency specific SEARs were also issued by Transport for NSW, Water NSW, Department of Climate Change, Energy, the Environment and Water (Conservation Programs, Heritage and Regulation and Water Group). Table 1.4 sets out how the agency specific SEARs have been addressed in this EIS.

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
WaterNSW	A detailed assessment of the potential impacts of the development (from flooding, excavation, wastewater, chemicals, stormwater, vegetation clearing, erosion, and potential for leaching of any stored metals on the site) on surface water and groundwater resources, including: • Impacts on Wollondilly River and associated tributaries, wetlands (if any), riparian land, and sensitive soils (sodic and saline) and from any discharges	This matter is addressed in the Water Cycle Management Study (WCMS) (Appendix 8 of the EIS) and summarised in Section 10 – Stormwater Assessment of the EIS. The report addresses these matters in Sections 2.10–2.29, Sections 3.13–3.39, Sections 4.11–4.35, Section 5 and Section 8, which discuss existing drainage and flood conditions, wastewater and stormwater infrastructure, lined sedimentation basins, geomembrane liners, de-pollution measures, erosion and sediment controls, stormwater treatment systems and water quality modelling outcomes. The Flood Study (Appendix 18 of the EIS) further assesses flood behaviour and flood-related impacts associated with the development. The proposed development includes a range of mitigation measures to protect surface water and groundwater resources, including stabilisation of disturbed areas, impervious stormwater ponds, paved access areas with runoff collection systems, and operational areas incorporating underlying liner systems to

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
		minimise the potential for leaching or contamination. In relation to construction impacts, a preliminary Erosion and Sediment Control Plan has been prepared, and a detailed Soil and Water Management Plan will be developed prior to the commencement of construction works to manage erosion, sedimentation and water quality impacts. These measures will minimise impacts on the Wollondilly River, associated tributaries, riparian land, sensitive soils and groundwater resources
	Whether the development can be constructed, operated and rehabilitated to achieve a neutral or beneficial effect on water quality consistent with the SEPP	The WCMS (Appendix 8) addresses whether the development can achieve a neutral or beneficial effect on water quality in the Introduction, Sections 4, 5 and 6, specifically through the application of Water NSW NorBe guidelines, MUSIC modelling and pollutant reduction analysis, which concludes that the proposed stormwater treatment measures achieve the required reductions in TSS, TP and TN. The study also incorporates a range of design and operational measures, including lined treatment basins, impervious operational areas, runoff collection systems, erosion and sediment controls and ongoing water quality management measures, to ensure the development can maintain a neutral or beneficial effect on water quality during construction, operation and rehabilitation.
	Water requirements and supply arrangements for construction and operation	Water requirements and supply arrangements for operation are addressed in Sections 2.16, 2.22–2.25, 3.18 and 4.25–4.36 of the WCMS (Appendix 8 of the EIS) and summarised in Section 10 Stormwater Assessment of the EIS.
	Description of the proposed water management systems (including wastewater and stormwater management, and adequate lining of storage areas) and any discharges	A description of the proposed water management systems is addressed in Sections 2.22–2.25, Sections 3.13–3.39 and Sections 4.11–4.35 of the WCMS (Appendix 8 of the EIS) and summarised in Section 10 Stormwater Assessment of the EIS.
	Surface water and groundwater monitoring programs including baseline monitoring of the Wollondilly River and associated tributaries, both upstream and downstream of the site	Baseline surface water quality monitoring information for the Wollondilly River has been incorporated into Section 10 of the EIS, based on WaterNSW monitoring undertaken as part of the Warragamba Catchment monitoring program. The Wollondilly River at Murrays Flat (Station E409), located downstream of the site, is routinely monitored for a range of water quality indicators including conductivity, turbidity, total nitrogen, total phosphorus and chlorophyll-a. The monitoring data identifies

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
		existing catchment influences associated with surrounding rural and agricultural land uses and provides an established baseline for assessment of potential impacts from the development. The proposed stormwater and water quality management measures incorporated into the development, including treatment train approaches, sedimentation basins, lined infrastructure, biofiltration systems and water reuse measures support the achievement of a neutral or beneficial effect on downstream water quality.
	Management of soils including erosion and sediment control measures (including any existing Catchment Protection Scheme erosion and sediment controls on the property), management of stockpiles, management of Metals storage, and their location on maps	“Management of soils, erosion and sediment controls, stockpile management and metals storage is addressed through the WCMS (Appendix 8), the ERSED Plan, Stormwater Civil Plan, MUSIC modelling, architectural plans and the Waste Management Plan (WMP). Sections 2.10–2.15, 3.10–3.39, 4.11–4.35 and Section 8 this report outline the proposed erosion and sediment control measures, stormwater treatment systems, lined infrastructure and water quality management measures for the site. Construction phase soil, erosion and sediment management measures are further addressed in the ERSED Plan, including stabilisation measures, sediment controls and site management procedures. A Soil and Water Management Plan will also be prepared prior to the commencement of construction works. Operational management measures, including the location and management of stockpiles and metals storage areas, are identified within the architectural plans and the Waste Management Plan (Appendix 11 of the EIS). The operational areas incorporate impervious surfaces, runoff collection systems and underlying liner systems to minimise the risk of contamination, sediment transport and leaching to surrounding land and water resources.
	Storage, use and management of chemicals and fuels on site	Storage, use and management of chemicals and fuels on site is addressed in Sections 3.13–3.16 and 3.32–3.39 of this report, together with the Operational Environmental Management Plan (OEMP) (Appendix 20 of the EIS) and associated operational procedures. These documents outline the proposed storage, handling and management measures for chemicals, fuels and potentially hazardous materials associated with the operation of the facility.

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
		The proposed development incorporates a range of mitigation and containment measures including designated storage areas, impervious operational surfaces, lined infrastructure, runoff collection systems, de-pollution processes, spill containment measures and stormwater treatment systems designed to minimise the risk of contamination to land and water resources. Operational procedures contained within the Operational Environmental Management Plan (EIS Appendix 20) further address chemical and fuel handling practices, spill response procedures, site management protocols, inspection and maintenance requirements, and ongoing environmental management measures for the facility.
	Design and operational management of any water quantity and quality management measures and structures, including their location and measures to protect existing watercourses on the site and mitigate surface and groundwater impacts.	Design and operational management of water quantity and quality management measures is addressed in Sections 3.32–3.39, Sections 4.11–4.35, Section 6 and Section 7 of the WCMS (Appendix 8 of the EIS) and summarised in Section 10 Stormwater Assessment of the EIS.
Department of Climate Change, Energy, the Environment and Water	The proponent should ensure that the EIS will be sufficiently comprehensive to enable unambiguous assessment of all direct and indirect impacts of the proposed development. The EIS should appropriately address the impacts of the proposed facilitatory road upgrades on roadside vegetation, particularly as BioNet records indicate threatened bird species such as the Dusky Woodswallow and Little Eagle occur within the assessment area.	A Flora and Fauna Assessment (FFA) (see Appendix 15) has been prepared for the EIS. Section 17 of the EIS summarises the impact assessment of direct and indirect impacts associated with the proposed development, including the facilitatory road upgrades. The FFA considers the potential impacts on roadside vegetation and habitat values along the proposed upgrade works and includes targeted consideration of threatened fauna species known or predicted to occur within the locality, including the Dusky Woodswallow and Little Eagle, consistent with BioNet records. The FFA concludes that the proposed road upgrades will result in only minor vegetation clearing and, with the implementation of the recommended mitigation measures, the Proposal unlikely to result in significant impacts on threatened species, ecological communities, or biodiversity values.
	The Environmental Impact Statement (EIS) should fully and clearly describe the proposed development, including any environmental impact mitigation measures, and identify all the processes and activities intended for the site during the life of the proposed development. The description of the proposed development in the EIS should, where relevant, include: 1. the location of the proposal and details of the surrounding environment; 2. the land use zoning;	See this EIS for details. The Proposal is described in Section 2, which outlines the location, surrounding environment, land use zoning, site layout, operational activities, staging, plant and equipment, chemicals and fuel storage, waste management, and all processes proposed over the life of the development. Section 1 provides details of the Site, its planning context, and relationship to surrounding land uses, while Section 3 outlines the applicable statutory framework. Section 17 summarises threatened flora and

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
	3. the size and type of the proposal and its operation; 4. the proposed layout of the site; 5. the staging and timing of the proposal; 6. the proposal's relationship to any other proposal. 7. all equipment proposed for use at the site; 8. chemicals, including fuel, used on the site and proposed methods for the transportation, storage, use and emergency management; 9. waste generation, storage and disposal; 10. the anticipated environment impacts of the proposal, both direct and indirect, 11. a plan showing the distribution of any threatened flora or fauna species and the vegetation communities on or adjacent to the subject site, and the extent of vegetation proposed to be cleared; and 12. ownership details of any residence and/or land likely to be affected by the proposal; 13. maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc. in the locality that may be affected by the proposal; 14. methods to mitigate any expected environmental impacts of the proposal; and 15. the anticipated level of performance in meeting required environmental standards. Impacts related to Biodiversity, Flooding, Coastal Processes and Associated Hazards, and Cumulative Impacts, should be assessed, quantified, and reported on in the EIS, as required.	fauna, vegetation communities, and the extent of vegetation proposed to be cleared, supported by mapping detailed in the FFA. The EIS also includes plans identifying nearby residences, surrounding land uses, conservation areas and other sensitive receivers, together with assessments of ownership and potentially affected land where relevant. Potential direct and indirect environmental impacts, together with mitigation measures and the Proposal's performance against relevant environmental standards, are comprehensively summarised within the relevant technical assessment chapters (Sections 6–21). Collectively, the EIS provides a complete description of the proposed development and its environmental impacts, enabling a comprehensive assessment of the Proposal.
	The EIS should include an assessment of the following referring to the relevant guidelines in Attachment 2: 1. The potential effect of coastal processes and coastal hazards including potential impacts of sea level rise: - on the proposed development; and - arising from the proposed development. 2. Whether the proposed development is consistent with any coastal zone management plans.	The EIS comprehensively assesses the Proposal's biodiversity, flooding, hazards and cumulative impacts. Biodiversity impacts are assessed in Section 17 and the FFA (see Appendix 15). Flooding is assessed in Section 20 of the EIS and detailed in the Flood Study in Appendix 18. Hazard-related impacts are addressed in Section 19 of the EIS, supported by the Bushfire Hazard Assessment (Appendix 13) and Fire Safety Study (Appendix 14). As the Site is not located within a coastal management area, coastal processes and associated hazards are not applicable. Cumulative impacts are assessed in Section 22, which concludes that with the proposed mitigation measures, the Proposal will not result in significant cumulative environmental impacts. Flood-related impacts are comprehensively assessed in Section 20 of the EIS, supported by the detailed Flood Study in Appendix 18 assessing flood behaviour, flood hazard, probable maximum flood (PMF) events, and the compatibility of the Proposal with the flood characteristics of the Site. The assessment concludes that the Proposal will not adversely affect flood behaviour, increase flood impacts on surrounding

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
	3. Whether the proposed development is consistent with any floodplain risk management plans. 4. Whether the proposed development is compatible with the flood hazard of the land. 5. Whether the proposed development will significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties. 6. Whether the proposed development will significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses. 7. Whether the proposed development incorporates appropriate measures to manage risk to life from flood. 8. Whether the proposed development is likely to result in unsustainable social and economic costs to the community as a consequence of flooding. 9. The implications of flooding over the full range of potential flooding, including the probable maximum flood, should be considered as set out in the NSW Government Floodplain Development Manual. This should include the provision of: - Full details of the flood assessment and modelling undertaken in determining any design flood levels (if applicable), including the 1 in 100 year flood levels. - A sensitivity assessment of the potential impacts of an increase in rainfall intensity and runoff (10%, 20% and 30%) and sea level rise on the flood behaviour for the 1 in 100 year design flood if applicable. 10. All site drainage, stormwater quality devices and erosion / sedimentation control measures should be identified and the onsite treatment of stormwater and effluent runoff and predicted stormwater discharge quality from the proposed development should be detailed.	properties, or result in unacceptable risks to life or property. Appropriate stormwater, drainage, erosion and sediment control measures are detailed in Section 12 of the EIS and in the WCMS (see Appendix 8) demonstrating that stormwater quality and runoff will be appropriately managed and meets Neutral or Beneficial Effects requirements of Water NSW. As the Site is located inland and is not within a coastal management area, coastal processes, sea level rise and coastal zone management plans are not applicable to the Proposal.
	The EIS should include an assessment of the following: - The cumulative impacts, including both construction and operational impacts, from all clearing activities and operations, associated edge effects and other indirect impacts on biodiversity in accordance with the <i>Environmental Planning and Assessment Act 1979</i>. - The cumulative impacts, including both construction and operational impacts, of the proponent's existing proposals and other proposals and associated infrastructure (such as access tracks etc.) as well as the cumulative impact of the proposed development in the context of other proposals located in the vicinity.	Cumulative impacts associated with the Proposal are assessed in Section 22 of the EIS, which considers both construction and operational impacts, including potential cumulative effects on biodiversity, surrounding land uses and existing or reasonably foreseeable developments in the locality. Biodiversity-related cumulative impacts, including vegetation clearing, edge effects and indirect impacts are also assessed in Section 17 of the EIS and in the FFA in Appendix 15. The assessments conclude that, with the implementation of the proposed mitigation measures, the Proposal is not expected to result in significant cumulative environmental impacts.
	Letter dated 7 November 2025 for inclusion in the SEARs.	Biodiversity and conservation related SEARs have been addressed in the Flora and Fauna

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
	Controlled Activities on Waterfront Land	Assessment report prepared by Hayes Environmental (see Appendix 15 of the EIS). See Section 10.1.9 of the EIS. It is considered that no Controlled Activity permit is required as the Proposal boundary does not cross any drainages and is greater than 40m from the top of any waterway bank.
	Water Licensing	See Section 10.1.8 of the EIS. No water supply work or water access licence is required, no groundwater bores are proposed and no interception of groundwater is expected.
	C. Biodiversity requirements	See Appendix 3 of the Flora and Fauna Assessment Report (Appendix 15 of the EIS).
	C. Biodiversity requirements	See Appendix 3 of the Flora and Fauna Assessment Report (Appendix 15 of the EIS).
Transport NSW	TfNSW has reviewed the supporting EIS and will require a Transport Impact Assessment (TIA) to properly assess the potential impacts on the transport network. The TIA will need to be undertaken by suitably qualified person/s and prepared in accordance with the TfNSW Guide to Transport Impact Assessment, 2024.	The EIS includes a Traffic and Parking Impact Assessment (TPIA) (see Appendix 7), summarised in Section 9 of the EIS.
	Provide clarification regarding existing and forecasted vehicle movements, including the anticipated volume of trucks and the proportion of vehicles exceeding 9-metres in length.	Existing and forecast vehicle movements are provided in Section 9 of the EIS and supporting TPIA (Appendix 7). The TPIA includes existing traffic surveys, forecast traffic generation and heavy vehicle movements associated with the Proposal. The assessment confirms that the largest vehicle expected to access the Site is an Articulated Vehicle (AV) up to 20 metres in length, meaning a proportion of operational vehicles will exceed 9 metres. In response to TfNSW's concerns, the Proposal incorporates a restriction on right-turn movements for vehicles exceeding 9 metres in length, with these vehicles directed to alternative approved routes. The assessment concludes that, with the proposed intersection upgrades and traffic management measures, the forecast vehicle and truck movements can be safely accommodated without resulting in unacceptable impacts on the surrounding road network.
	Swept path analysis is to be undertaken at the Hume Highway / Murrays Flat Road intersection for the expected design vehicle(s), demonstrating all proposed turning movements. Swept path analysis should also be provided for any U-turn movements at identified intersections along the Hume Highway to ensure the design vehicle can safely and efficiently complete the manoeuvre without impacting existing traffic or infrastructure.	Swept path analysis has been provided in Appendix B of the TPIA (Appendix 7 of the EIS) showing Vehicle Swept Paths and Figure 8 Swept Path of Turning Area along Carrick Road. The TPIA considers the expected design vehicles including articulated vehicles up to 20 metres and smaller heavy vehicles. The Hume Highway / Murrays Flat Road intersection has been assessed with proposed turning restrictions and upgraded intersection treatments. These include left-in/left-out controls and prohibition of right

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
		turns from Murrays Flat Road. Vehicles requiring a turning manoeuvre are directed to approved routes. The Carrick Road swept path demonstrates that the nominated vehicle can complete the manoeuvre safely without impacting existing infrastructure.
	Additional details are to be provided outlining the eastbound route on the Hume Highway for vehicles greater than 9 metres in length that are travelling towards Goulburn. We note the Boxers Creek Road intersection has an existing deceleration lane that does not comply with Austroads standards.	The eastbound route for vehicles greater than 9 metres is addressed in the TPIA (Appendix 7), including the vehicle routing assessment and mitigation measures. The TPIA confirms that articulated vehicles accessing the Site will be managed through route controls, driver inductions and a Drivers Code of Conduct. Vehicles over 9 metres will not use the Boxers Creek Road intersection for turning movements. Instead, articulated vehicles approaching from the north are directed to use the Hume Highway / Hume Street roundabout to undertake a U-turn, then travel eastbound on the Hume Highway and enter Murrays Flat Road via the upgraded channelised left-turn lane. This avoids reliance on the non-compliant Boxers Creek Road deceleration lane and ensures heavy vehicle movements are managed via a safer, controlled route. Articulated vehicles will only travel north towards Sydney from the Site.
	Design details for the proposed 1-metre raised median island on Murrays Flat Road near the Hume Highway entry point. Noting that raised median islands require lighting in accordance with TfNSW requirements.	Design details for the proposed median island are provided in the TPIA (Appendix 7) including Appendix C (Traffic Design Plans) of the TPIA. The proposed works include a 1.0-metre-wide median island on Murrays Flat Road, offset 1.0 metre from the Hume Highway, to separate inbound and outbound traffic, provide safe clearance, and prevent prohibited right-turn movements from Murrays Flat Road. The final detailed design will incorporate any required lighting, signage and line marking in accordance with TfNSW and Austroads requirements prior to construction.
	Further information is to be provided regarding the proposed signage restricting right-turn movements for trucks exceeding 9-metres in length, to ensure compliance with TfNSW requirements.	Details regarding the proposed restriction on right-turn movements for vehicles exceeding 9 metres are provided in Section 9 of the EIS and the TPIA (Appendix 7).
	Intersection performance during peak activity periods and any impacts to the keys State roads should be analysed using SIDRA intersection modelling.	Intersection performance during peak periods is detailed in the TPIA (Appendix 7) and summarised in Section 9 of the EIS. SIDRA modelling was undertaken for the Hume Highway / Murrays Flat Road intersections under existing and forecast post-development conditions. The assessment confirms that the key State Road intersections will continue to operate at

Topic	Description of SEARs Requirement	EIS Section where this requirement is addressed
		acceptable levels of service, with no unacceptable impacts to the Hume Highway road network. Detailed SIDRA outputs are provided in Appendix D of the TPIA.
	Provide strategic design plans of any improvements on the classified (state) road network required to support the proposed development. Note, the consent authority should ensure that proposed road infrastructure can be provided within the land available before the development is approved and that TfNSW is able to provide in-principle acceptance of the strategic design.	Strategic design plans for the proposed improvements to the classified State road network are provided in Appendix C of the TPIA (Appendix 7). The proposed works include upgrades to the Hume Highway / Murrays Flat Road intersection. The upgrades include an extended channelised right-turn lane, upgraded channelised left-turn lane, median island, signage and line marking. The proposed design plans can be accommodated within the available road reserve and will be subject to detailed design.
	Additional correspondence between TfNSW and the specialist traffic consultant (Hemanote Consultants Pty Ltd) for the Applicant was undertaken over the course of EIS development.	Sections 8 and 9 of the Traffic and Parking Impact Assessment (Appendix 7) provide detailed responses to TfNSW's SEARs input and further requests for information from TfNSW.

1.11. Goulburn Mulwaree Council Pre-Lodgement Requirements

A formal Pre-lodgement Meeting was held with Goulburn Mulwaree Council on 27 January 2022 to discuss the Proposal. The meeting was attended by representatives from Sincorp Properties Pty Ltd, the project architect, and Council officers. Pre-lodgement Minutes (FWA/0042/2122, dated 24 February 2022) were issued providing preliminary advice on key planning, environmental, and engineering matters relevant to the preparation of this EIS. Refer to Table 1.5 for key pre-lodgement requirements and where these are addressed in the EIS. See Appendix 23 for the full pre-lodgement notes.

Table 1.5. Overview of how Council's pre-lodgement requirements have been addressed in this EIS.

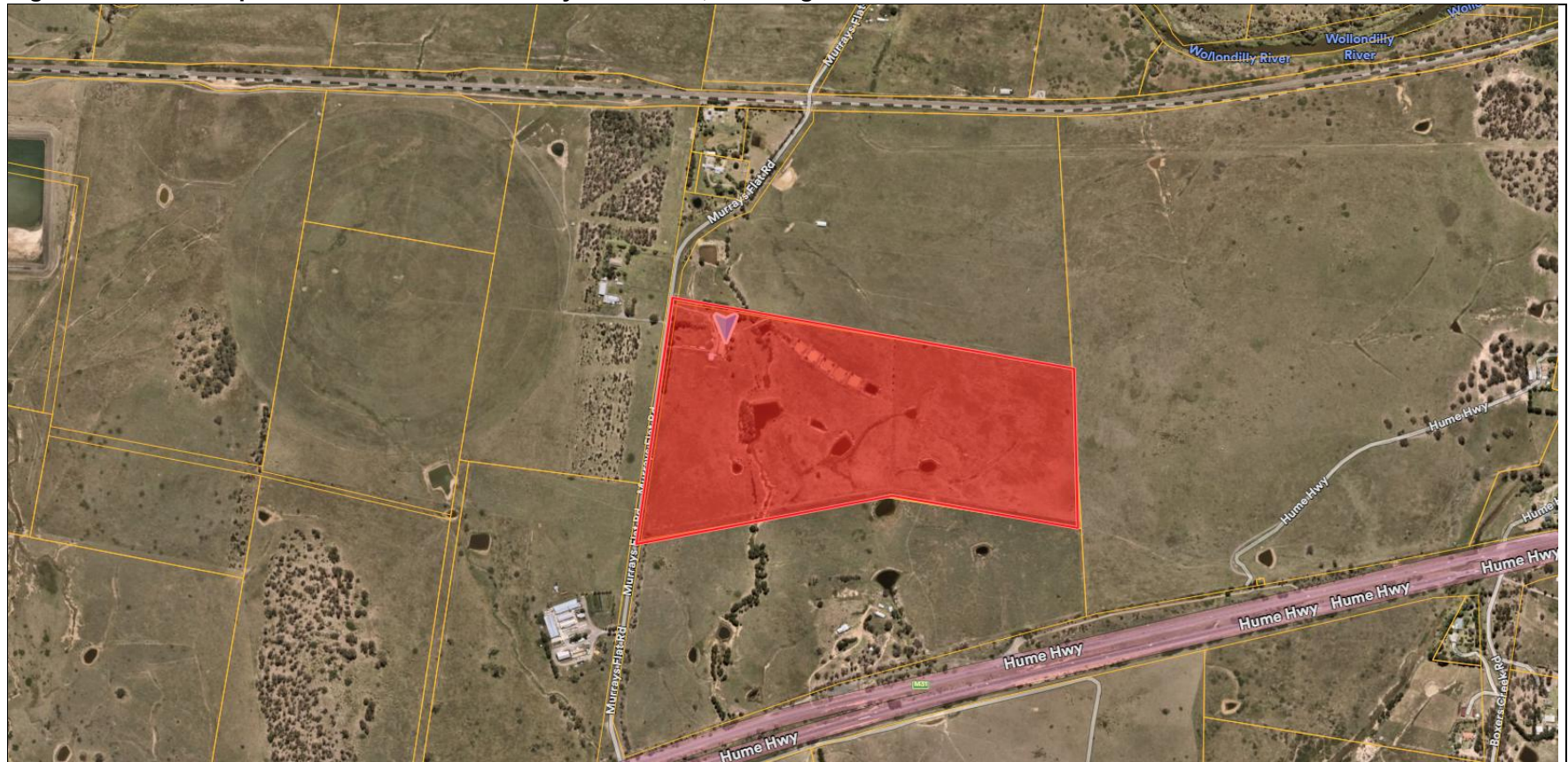
Council Pre-lodgement Requirement	Summary of Requirement (see Appendix 23 for full notes)	EIS Section where this requirement is addressed
4.2 A detailed waste management plan will be required as	A detailed waste management plan will be required as part of the Development Application, to identify the handling and anticipated extent of waste created: - During any demolition and construction works - During operation – for the scrap metal component, associated with any site office or residual dwelling, and for any other permissible land uses proposed	Refer to Section 13 and Appendix 11 (Waste Management Plan)
5. Utilities	As the site is not connected to Council's reticulated water network, a Development Application will need to demonstrate the quantities of water required to service the proposed development, how and from where it will be sourced, and how it will be delivered to and stored on site.	Section 7 and Appendix 4 (Wastewater Assessment)
7.1. Stormwater and flooding	A flood study will be required. This will need to demonstrate the extent of flood of the watercourse on the Site, including the influence of the farm dams on flood levels. The development and water quality controls will	Refer to Appendix 18 (Flood Study) and section 20 of this EIS.

Council Pre-lodgement Requirement	Summary of Requirement (see Appendix 23 for full notes)	EIS Section where this requirement is addressed
	need to be located to comply with Council floodplain controls.	
7.2.5 Neutral or Beneficial Effect on Water Quality	A wastewater report, prepared by a suitably qualified person, will be required as part of the NorBE process. This is to outline (among other items): • The extent of waste water treatment and stormwater retention already on site. • The anticipated extent of waste water to be generated by the proposed development. • Clarification as to whether on-site waste water treatment facilities in place for the existing on-site dwelling, are sufficient to accommodate the change of use of part or all of the dwelling building for use as staff amenities. If not, a new or augmented On- Site Sewage Management Facility (OSMF) will be required as part of the Development Application.	Refer to Appendix 4 (Wastewater Assessment) and refer to Section 7 of this EIS.
7.3.1 Parking and Traffic	Consultation with Transport for NSW (TfNSW) is considered essential prior to the lodgement of any Development Application on the site, as any development on the Site relies on access to and from the Hume Motorway. A Traffic Management Plan will be required.	Refer to Section 5 and section 9 of this EIS and Appendix 7 (Traffic and Parking Impact Assessment) and Appendix 7B Construction Traffic Management Plan)
8.6 Landscaping	8.6.1. Noting the Site's location and visibility from the Hume Motorway, bunding and landscape plantings will be required within the Site boundaries. 8.6.2. The bunding and landscaping is to be designed such that any on-site scrap metal, and stockpiles of waste or recycled metal, are not visible from the Hume Highway. 8.6.3. The plan should detail the extent of pervious and impervious surfaces within the Site, and the types of impervious surfaces proposed. 8.6.4. Such landscaping is to be mindful of NSW Rural Fire Service (RFS) requirements regarding Asset Protection Zones (APZs). As per RFS best practice, Council does not support APZs encroaching onto neighbouring lots of land. 8.6.5. Such landscaping is to be mindful of Water NSW requirements, regarding stormwater and waste water measures, and erosion & sediment control. 8.6.6. Landscaping provisions are included in the "GMDCP 2009", including but not necessarily limited to parts 3.5 and 4.2. It is	Refer Sections 2.11 and 8 of this EIS and Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment)

Council Pre-lodgement Requirement	Summary of Requirement (see Appendix 23 for full notes)	EIS Section where this requirement is addressed
	recommended that the development include a mix of native and non-native species, to support visual screening of the site.	
8.10 Bushfire matters	The application is to be accompanied by a bushfire assessment report, prepared by a suitably qualified person, to demonstrate how the Proposal will mitigate bushfire risks to on-site operations and to neighbouring land.	Refer to section 15 of this EIS and Appendix 13 (Bushfire Assessment).
8.12 Land titles matters	A Development Application is to demonstrate whether there are specific land title matters specific to the Site –such as existing easements, or restrictions created under Section 88B of the Conveyancing Act 1919.	Refer to owner's consent in Appendix 22.
8.13 Signage	Demonstration will be required in the application as to the type of signage required for the development, its location, dimensions, colours and materials, and whether any signage is to be illuminated.	Refer to Appendix 1 (Architectural Plans).
9. Vegetation and Landscaping	The Development Application is to include a statement as to whether the Proposal is likely to significantly affect threatened species, populations of their habitats (test of significance detailed in section 7.3 of the <i>Biodiversity Conservation Act 2016</i>) and whether the Biodiversity Offsets Scheme (BOS) has been triggered.	Refer to Section 17 of this EIS and Appendix 15 (Flora and Fauna Assessment).
10. Aboriginal Heritage	The land is identified has having Potential Aboriginal Artefacts under the “ <i>GMDCP 2009</i> ”. An investigation for potential Aboriginal Cultural Heritage is required to be undertaken in accordance with the current Office of Environment and Heritage guides.	Refer to section 16 of this EIS and Appendix 14 (Aboriginal Heritage Assessment).
13. External Agencies	Transport for NSW (TfNSW) Water NSW NSW Rural Fire Service (RFS) Department Primary Industries (DPI) Water	The applicant has consultant the agencies and received feedback. Refer to Section 5 of this EIS and Appendix 2 (Community and Stakeholder Consultation Report).
17.3 General	Statement of Environmental Effects (SoEE) detailing the characteristics of the Site and providing an assessment of the proposed development in accordance with the matters for consideration under Section 4.15 of the <i>Environmental Planning and Assessment Act 1979</i> including demonstrating compliance with any relevant State Environmental Planning Policies, the Goulburn Mulwaree Local Environmental Plan 2009 and Goulburn Mulwaree Development Control Plan 2009; OR Environmental Impact Statement, if the Proposal triggers the requirement for one. An initial Site analysis plan including all existing structures, features, vegetation, 1 or 2m contours, Site strengths, constraints, weaknesses, opportunities and threats.	This EIS document. Refer to Appendix 1 (Architectural Plans). Also see Appendix 5 (Landscape Concept Plan) and Appendix 6 for (Visual Impact

Council Pre-lodgement Requirement	Summary of Requirement (see Appendix 23 for full notes)	EIS Section where this requirement is addressed
	If the subject Site contains existing structure(s) or building(s) a set of plans (<i>a set of plans includes a Site plan, floor plan(s) elevations(s) cross section(s)</i>) that clearly identifies the existing configuration of those structures. If the Proposal requires demolition either in part or whole of a structure a separate set of plans (<i>a set of plans includes a Site plan, floor plan(s) elevations(s) cross section(s)</i>) is to be provided that clearly identifies the item(s) being demolished. The use of visual aids such as dashed coloured (red) lines should be considered.	Assessment), and Appendix 15 (Flora and Fauna Assessment)
	If the Proposal involves the removal of vegetation a Site plan is to be provided that clearly identifies the areas, the type (native/exotic) and species of vegetation to be removed, the plans shall include area (in square metres) values of all categories of vegetation loss.	Refer to Landscape plans Appendix 5 (Landscape Concept Plan).
	Concept stormwater plan(s), where applicable long section(s) for any proposed stormwater infrastructure both onsite and offsite required to service the Proposal in collaboration and where applicable with Councils infrastructure.	Refer to Appendix 8 (Water Cycle Management Study).
	Concept road and intersection details in collaboration with the existing road network, configuration plan(s) shall clearly articulate all proposed upgrades to the local road network.	Refer to Appendix 7 (Traffic and Parking Impact Assessment).

Figure 1.1. Aerial map of Site location at 88 Murrays Flat Road, Towrang. Lot is shown in red.



Date	Revision	Drawn By	Site description	JEP Environment & Planning	Client	Sydney Metal Traders
13/07/2025	Revision A	D.Estephan	88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP251779)	Strategy Approvals Compliance Licensing A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	Project	EIS
					Title	Aerial view
					Scale	See Figure
					Source	Nearmap



Figure 1.2. Land use zoning of the Site and locality under Goulburn Mulwaree LEP 2009. Approximate Lot boundaries are shown in yellow.

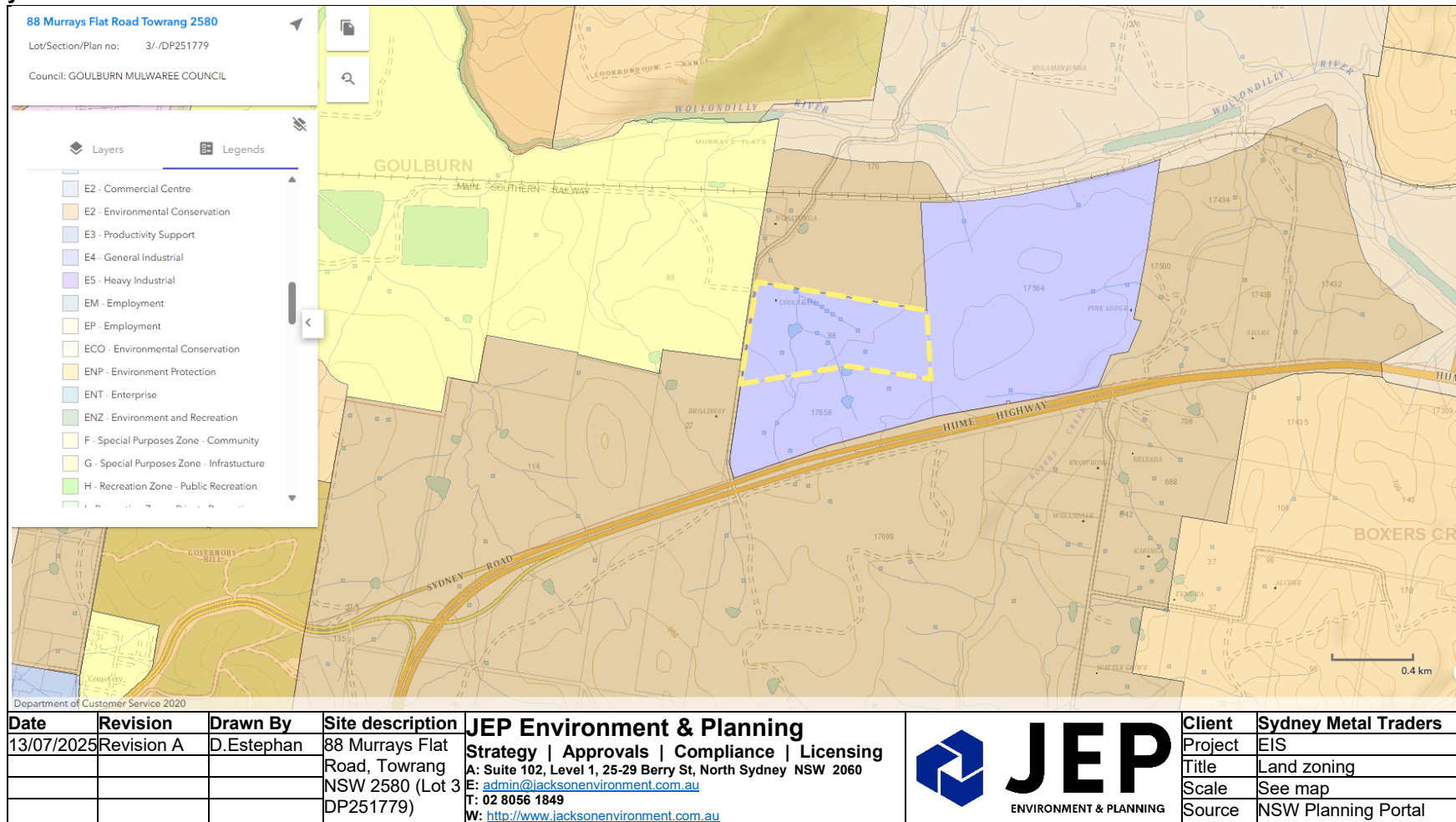
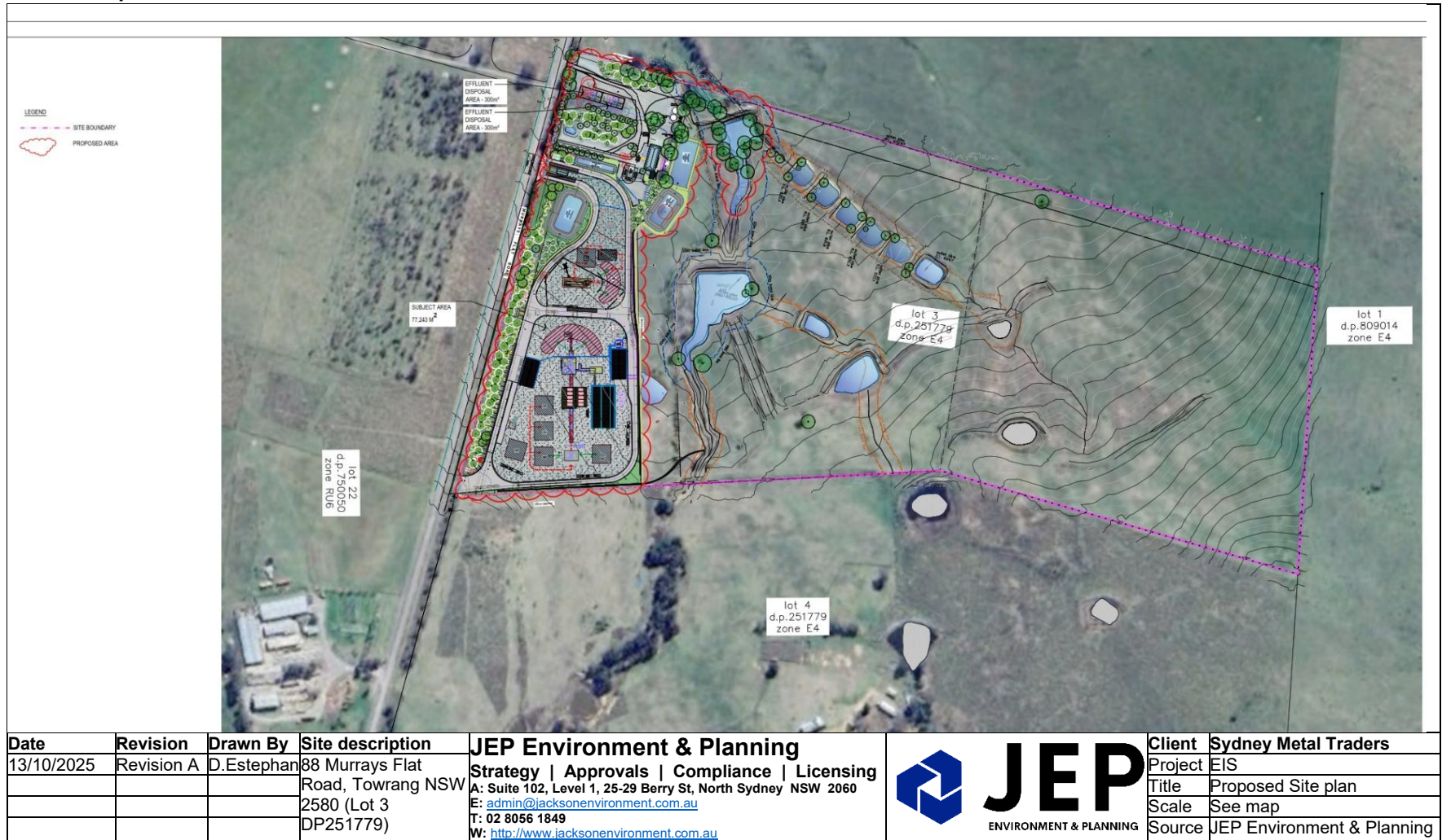


Figure 1.3. Proposed Site plan for 88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP251779). Refer to Appendix 1 for the high-resolution plan set.



2. Description of the Proposal

The Proposal includes development of a metals recycling facility at 88 Murrays Flat Road Towrang NSW 2580 (Lot 3 DP251779). The Site will receive scrap metal, shred and separate the metals for transport off-site to a recycling facility. The operations will be carried out in buildings and on hardstand areas on an area of approximately 7.7 hectares (the Site) out of a total lot area of 32.3 hectares.

The Facility will include the following components and infrastructure:

- Receival and Sorting Areas – Bays for the tipping, inspection, and initial sorting of incoming scrap metals;
- Pre-Shredding and Shredding Zones – Equipped with pre-shredders, hammermill shredders, stationary shears and oxy-cutting facilities;
- Post-Processing Separation Facility – Bays for the separation, recovery, and temporary storage of processed ferrous and non-ferrous metals;
- Administrative Infrastructure – Adaptation of the existing on-site cottage into office and staff amenity space including staff parking area;
- Workshop and Maintenance Shed – A fully enclosed 32m x 15m x 12m structure for plant maintenance and operations;
- Mobile and Stationary Equipment – Including loaders, shears, conveyors, radiation detection equipment, and sorting systems;
- Weighbridges – Two entry/exit weighbridges for the accurate measurement of materials and heavy vehicle management and one internal weighbridge;
- Fuel Storage – A 50,000L self-bunded diesel tank, installed on a concrete hardstand with protective bunding and rain cover;
- Landscaping and Visual Screening – A 20-metre-wide landscaped setback along the western and southern Site boundaries;
- Traffic Management and Site Circulation – Paved hardstand access ways using existing access points with the addition of a new exit closer to the Hume Highway to minimise impacts on local roads and residential areas;
- Intersection Upgrades – To improve safe intersection sight distances (SISD), accommodate anticipated turning volumes, and provide a safe environment for both light and heavy vehicles accessing the Site, the following intersection and turning upgrades are proposed:
 - A channelised left-turn lane (CHL) to improve safe intersection sight distance (SISD) for vehicles approaching the Hume Highway from Murrays Flat Road;
 - The right-turn movement from Murrays Flat Road onto the Hume Highway will be prohibited for all vehicles, along with any U-turn movements for eastbound vehicles intending to travel back towards Goulburn;
 - Right-turn movements from the Hume Highway (westbound) into Murrays Flat Road will be retained, with a compliant deceleration lane designed in accordance with Austroads guidelines;
 - Extension of the existing channelised right-turn lane on the Hume Highway (westbound) into Murrays Flat Road to 185 metres, in compliance with Austroads standards;
 - Extension and upgrade of the existing auxiliary left-turn lane on the Hume Highway (eastbound) into a channelised left-turn lane of 185 metres, including chevron line marking for guidance;
 - Installation of a median island to guide traffic and prevent right-turn movements from Murrays Flat Road (towards the west);

- Construction of a 1.0-metre-wide median island on Murrays Flat Road, offset by 1.0 metre from the Hume Highway, to separate inbound and outbound traffic and provide safe clearance; and
- Installation of regulatory signage and line marking to prohibit right-turn movements from Murrays Flat Road.
- Renewable Energy Infrastructure – The Facility will incorporate rooftop solar photovoltaic (PV) panels installed on the Workshop and Maintenance Shed, with power stored via an integrated Battery Energy Storage System (BESS);
- Wastewater system upgrades for on-site effluent treatment and disposal; and
- Stormwater Management – All operational areas will be constructed of compacted road base incorporating HDPE liners beneath operational areas, stormwater capture systems, and detention basins. The stormwater management system is designed to progressively capture and treat runoff through a series of infrastructure elements.

The Facility will receive and process scrap metal sourced from Sydney, Goulburn, the ACT, Southern Highlands, and surrounding regional areas. Processed materials will be transported to both local and overseas markets for recycling and end use.

The proposed scrap metal processing will be carried out in designated operating areas. Equipment used for the metal processing activities will comprise oxy-cutting, stationary shear, pre-shredder, shredder (hammermill), and downstream separation and sorting equipment.

Around 3% of incoming scrap metal has been processed off Site or does not require further processing and is received in a form ready for on-sale. This material includes Copper, Brass, Aluminium, Stainless Steel, Electric Motors, Batteries (ULABs) and Lead. Separate waste storage bays will be provided to store sorted and shredded metals prior to being loaded onto trucks for off-site recycling. The waste generated during operations will be safely and lawfully disposed at a licensed landfill.

Depollution activities will occur within a purpose-built enclosed shed structure identified in the architectural plans as the Depollution Bay. This area is designed to safely receive end-of-life vehicles (ELVs) for the removal of hazardous fluids and components prior to shredding or further processing. Upon arrival, whole vehicles will be inspected and transferred to the depollution bay where trained personnel will undertake the draining of oils, fuels, brake fluids, coolants, and other hazardous substances, using industry-standard vacuum and containment systems. Fluids will be securely stored in bunded, clearly labelled tanks or containers, pending lawful off-site disposal at a licensed waste facility.

Refer to Figures 2.2 to 2.9 for the proposed site layout and elevation plans, including the Hammermill control room, gatehouse floor plan, workshop and amenities layout, as well as the storage and depollution area floor plan.

2.1. Self-Bunded Fuel Tank

The Proposal includes a 50,000-litre self-bunded and covered fuel storage tank over a concrete pad that includes 25mm high roll-over bund around the pad perimeter. A 10,000L underground spill collection tank will be located under the concrete pad. Fill points of the tank are to be located wholly within the bunded and covered concrete area.

The diesel tanks will be protected by impact protection which will prevent any wayward vehicles from contacting the tank. The tank will be designed in accordance with AS 1940:2017 and be capable of containing the full volume of the liquid within the separate tanks, should deterioration of the internal tank occur.

Diesel is not classified as a Dangerous Goods; however, it is a C1 combustible liquid. It could sustain combustion although initial ignition is difficult due to its high flash point. Combustible liquids do not generate flammable vapours which eliminates the potential for flash fire or explosions to occur when confined.

A separation distance of at least 7m exists between the fuel storage area and the Site boundary. The fuel storage and refuelling area has been designed in accordance with the NSW EPA's Practice Note: Managing run-off from service station forecourts (2019) will consist of the following:

- A covered, self-bunded tank providing storage for 50,000L of diesel (see Appendix A for general arrangement and containment specifications);
- A refuelling area consisting of a concrete pad sloped inward to an underground spill containment tank;
- An underground spill containment tank with the fall of the pad directed towards the spill containment tank inlet; and
- An awning extending over the entire concrete pad refuelling area to minimise water entry during rainfall events.

2.2.Construction

The construction period for the proposed development would be approximately six (6) months, after receiving the development consent. The works will be carried out in the following stages:

Site mobilisation:

- Services search;
- Establishment of environmental management measures including erosion and sediment controls;
- Establish Site access, laydown areas; and
- Establishment of stockpile sites.

Grading & civil works:

- Removal of vegetation;
- Bulk cut and fill earthworks;
- Construction of stormwater drainage system;
- Trench, backfill Site services; and
- Formation of hardstand areas with a HDPE layer;

Industrial sheds/buildings:

- Concrete pad pours (foundations);
- Delivery of industrial shed components for plant/equipment areas;
- Erection of the structural steel; and
- Delivery and installation of mobile metal shredding equipment.

Pavement works:

- Construction of access and paving; and
- Construction of internal truck turning areas.

Conversion of Residential Building to Administration Offices Activities:

- Internal retrofitting and fit-out of the office; and
- Installation of fixtures, furniture, and equipment in the office.

Upgrade and refurbishment of the On Site Sewage Management System (OSSM)

- Connection of the converted administration building;
- Connection to Workshop and Gatehouse;

- Installation and commissioning of wastewater treatment facilities; and
- Installation and commissioning of the effluent irrigation area.

Landscaping / screening works:

- Delivery of plant materials, soil amendments and mulch; and
- Planting, fertilising and watering of plants over bunds and other relevant areas.

2.3. Main Uses and Activities

An operational overview of the Site functions is provided in the following sections, and a conceptual Site operations plan is provided in Figure 2.2. The full plans are provided in Appendix 1. The following activities will occur on the Site at the Facility:

- Tipping and inspection of incoming scrap metals;
- Primary sorting;
- Oxycutting and shearing;
- Pre-shredding;
- Shredding (hammermill); and
- Storage of processed metals for off-site recycling.

Incoming vehicles will enter the Site from Murrays Flat Road, turn right to be weighed on the weighbridge. Unloading and sorting of unprocessed scrap metals will occur in one of two optional areas. One area is near the pre-shredding and shredding area, where most of the unprocessed metals will be tipped. The other area is near the oxycutting and fixed shearing area. Primary tipping areas are marked as blue squares numbered one (1) in Figure 2.2.

If unprocessed metals require pre-shredding, the material will be moved from the primary tipping area to the unprocessed metal storage bays marked as blue squares numbered two (2) to await pre-shredding. Otherwise metals will go directly into the primary shredder (hammermill) for processing.

The final plant and equipment chosen for the Proposal will be based on requirements of the Facility and best practice to achieve all criteria and legislative requirements for air quality, noise and other amenities.

Storage of processed metals will occur in various areas, depending on whether the material is shredded ferrous, shredded non-ferrous, large sheared or oxy-cut pieces, metal awaiting further shredding, or residual floc. Load out will occur regularly to export processed material off-site for further recycling.

2.3.1. Tipping, Inspection and Sorting area

The Facility is designed to process up to 30,000 tonnes per annum (tpa) of ferrous and non-ferrous scrap metals through receipt, sorting, cutting, shredding and storage operations. Some material may go direct to the oxy-cutting and shearing area. Materials accepted for processing are ferrous and non-ferrous metals of various sizes comprising:

- | | |
|----------------|-------------|
| • Steel | • Aluminium |
| • Carbon Steel | • Copper |
| • Alloy Steel | • Lead |
| • Cast Iron | • Zinc |
| • White Goods | • Tin |
| • Cars | • Batteries |

- Sheet Metals
- Stainless Steel

The following materials will not be accepted:

- Special waste;
- Liquid waste;
- Hazardous waste;
- Restricted solid waste; and
- General solid waste (putrescible or non-putrescible).

The open plan Site area allows rigid vehicles tipping and turning area. 19 m truck and dog vehicles will enter the Site via a weighbridge and travel south towards the receiving areas. There are three receiving stockpile areas approximately 20m x 20m and 4m high using concrete blocks for separation in the southern part of the Site, and one receiving stockpile area approximately 20m x 20m and 4m high using concrete blocks near the oxy-cutting area. Any unacceptable materials will be removed from here.

2.3.2. Primary shredding processes

The following processes may occur prior to the primary shredding (hammermill) and metals separation processes:

Oxy cutting

Oversized and large heavy ferrous scrap metal that cannot be processed by the shear are reduced in size by oxy-cutting process. These cut scrap will then be further processed using the shear or stored in a stockpile within the oxy-cutting area.

Stationary shearing

The stationary shear will process large ferrous scrap metal items such as steel beams, plates and fabrications by cutting them into short lengths suitable for transporting direct to steel mills. The shear will also process items which cannot be shredded or fed into the pre-shredder or shredder. This material items will be stored in a stockpile adjacent to the shear.

Pre-shredding

Prior to shredding in a hammermill, all metals (e.g. car bodies with or without engines) are introduced into the pre-shredder to reduce their size and produce a homogenously graded feedstock. The pre-shredder has many benefits such as detecting unshreddable material, handling potentially explosive materials (e.g. gas bottles), reducing noise and vibrations of the shredder, improves the efficiency and process rate and allows the shredder to operate at its most economical range of energy consumption. This material will be fed by conveyor into the shredder.

2.3.3. Secondary shredding

Metal is processed through the shredder/hammermill either directly after sorting or after the pre-shredding process described above. The shredding processes the scrap metal into smaller pieces using the hammermill shredder. The finer shredding of the metals reduces the volume and the space required for storing the processed metal and reduces the number of trips required to transport the recovered metals.

Shredder/Hammermill

Processes material from the pre-shredder or directly from the unprocessed metal stockpile. The shredder produces fragmented metal (shred), and a combination non-metal residue (floc) and small quantities of shredded non-ferrous metals. The shred will be stored in separate and designated stockpile depending on the material.

Downstream Separation

The shredding process will help liberate the ferrous and non-ferrous metals.

Material entering the scrap shredder is typically disintegrated by way of the rotating hammers and an interactive shredding mechanism. The broken mixed feed materials are separated in downstream plant. All disintegrated materials leaving the shredding chamber are directed within the scrap shredder structure and discharge chute to a discharge conveyor.

The output of the scrap shredder is transported via conveyor to the drum magnet. Ferrous materials are diverted for picking and stockpiling. Ferrous materials are further processed through a picking conveyor before being stockpiled. Both the post shredder and the magnetic separator are covered. Covers will also be used over the conveyors where practicable to minimise the use of water spraying.

The combined floc and non-ferrous metals from the shredding process are further processed using the downstream recovery plant. The remaining material (non-ferrous metals, dirt and fluff) is routed to an Eddy Current Separator (ECS). The instantaneous magnetisation of non-ferrous metals separates these materials from the other non-metallic materials, fluff and dirt on the ECS conveyor. Recovered metals are routed to adjacent bunker bins.

Floc is discharged via a covered conveyor into a separate covered and contained area to prevent discharge of oil, grease and other potential pollutants to the Site's stormwater system. Floc typically comprises an estimated 20 to 30% of the input stream by weight. Floc will be regularly transported to a licensed facility that can accept this waste.

2.3.4. Storage of processed metals for off-site recycling

The shredded materials will then be stored for loading and transportation to offsite recycling and manufacturing into new metal products.

The non-metal residue (floc) is separated from the non-ferrous metals. Non- Ferrous metals are stored in a covered bay and the floc will be stored in a covered floc bay.

2.4. Process description

The proposed development will involve the receipt, size reduction, shredding and separation of ferrous and non-ferrous scrap metal, including car bodies, whitegoods, and structural steel. Materials will be processed through a series of mechanical treatments designed to reduce volume, improve sorting efficiency, and prepare outputs for transport and recycling. Heavy gauge steel that cannot be processed by the shear such as beams, large plate, or structural components will be downsized using oxy-cutting. This process involves heating the steel with a torch to enable manual cutting into manageable sections. Cut pieces will either be stored temporarily in the oxy-cutting stockpile area or directed to the stationary shear for further processing.

The stationary shear will cut bulky ferrous scrap into transportable lengths suitable for steel mill delivery. It will also process materials unsuitable for shredding due to shape, density, or composition. These items will be stockpiled adjacent to the shear. Vehicles, metal appliances, and general light scrap will be fed into a pre-shredder. This equipment reduces the size of incoming material, removes potential contaminants, and creates a uniform feedstock for the main shredder. The pre-shredder improves operational safety by identifying potentially explosive or unshreddable materials (e.g. gas bottles) and reduces the energy load, vibration, and wear on the primary shredder.

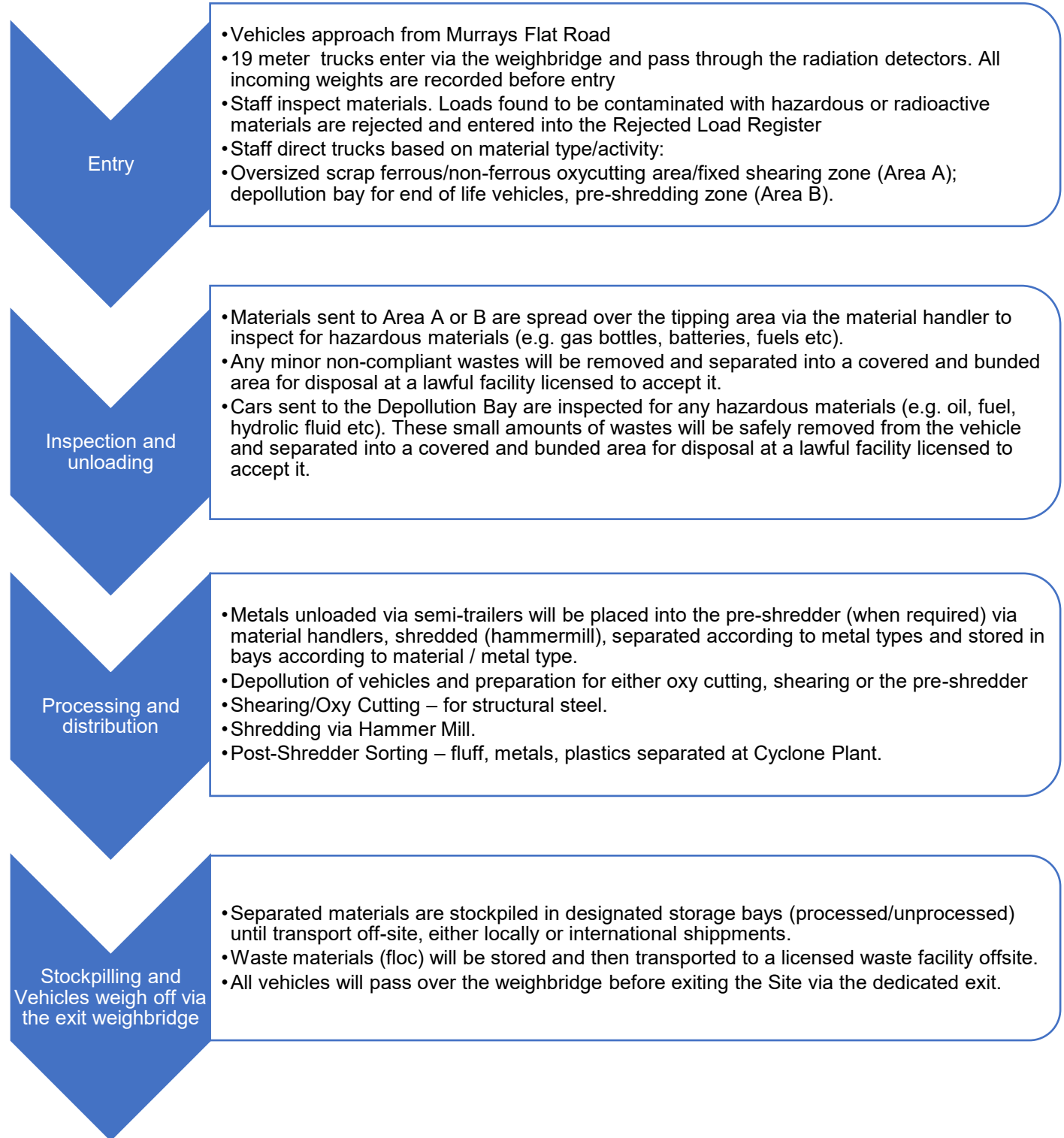
Once pre-shredded, material is transferred by conveyor into the hammermill shredder. The shredder fragments the metal into smaller pieces using a rotating hammer mechanism. This reduction in size facilitates storage, increases load efficiency for transport, and aids in the downstream separation of materials. Material discharged from the shredder enters a separation system comprising a drum magnet and picking line. Ferrous metals are magnetically extracted and manually sorted before being placed into stockpiles. The shredder, magnetic separator, and conveyors are covered where practicable to reduce emissions and minimise the need for water-based dust suppression.

Non-ferrous metals and mixed residue (floc) are directed to the downstream recovery plant, where an Eddy Current Separator (ECS) is used to extract non-ferrous metals. These metals are automatically sorted based on magnetic induction and deposited into bunker bins for collection.

Remaining floc material typically consisting of dirt, plastics, glass, rubber, and small metal fragments is conveyed to a covered and bunded storage area. This floc makes up approximately 20–30% of the total input by weight and will be regularly removed from Site and sent to a licensed waste facility. The design of this area prevents discharge of

contaminants such as oil and grease into the site's stormwater system. A process flow diagram for Site operations is presented in Figure 2.1.

Figure 2.1. Process flow diagram for Site operations.



2.5. Quantities and sources of waste materials to be received

The waste materials to be accepted and recycled at the Site are given in Table 2.1. The waste classification of each material under the NSW EPA's Waste Classification Guidelines (2014) is General Solid Waste (Non-putrescible).

The Facility will receive up to 30,000 tonnes per annum of scrap metals, with daily throughputs below 150 tonnes, comprising predominantly ferrous and a smaller fraction of non-ferrous grades (aluminium, copper, stainless steel, lead, zinc, tin, sheet metals, batteries and motors). Of the material received, process yields indicate around 18,000 t/yr will be recovered as ferrous product (approximately 60%), 4,000 t/yr as non-ferrous product (13.33%), and 8,000 t/yr (about 20–30% by weight).

All incoming loads are measured on the inbound weighbridge, and on-site storage is managed within a maximum concurrent holding capacity of 14,354 tonnes across designated pads and recovery bays to maintain safe and compliant operations.

Storage locations and storage capacity of received, processed and stored metals are provided in detail in the Waste Management Plan (Appendix 11, Section 3.3.2).

The estimated output materials from the shredding and separation processing of scrap metals is summarised in Table 2.1. The overall recycling rate of the scrap metal received is estimated at 74%. However, further recycling at offsite facilities licensed to accept the floc material may provide further opportunities for recovery.

Table 2.1. Summary estimate of export forecasts of shredded scrap metal and residuals. Actual may vary.

Export material	Annual Tonnes	Destination	Overall Estimated Percentage
Ferrous metals	18,000	International shipment and/or local destinations.	60.00%
Non-ferrous metals	4,000	Local destinations.	13.33%
Floc	8,000	Eastern Creek Resource Recovery Park	26.67%

2.6. Other Site features and utilities

The Site currently features several mature native trees, which significantly contribute to screening the Site from surrounding areas. A dam is located in the northern portion of the Site, and an existing brick cottage is to be retained and converted into an administration building. Additional existing infrastructure, including hardstand areas and container structures, will be incorporated into the proposed development. Vegetation removal is limited to what is necessary to accommodate Site access and operational infrastructure, with emphasis placed on retaining vegetation that contributes to visual screening.

The Site has an existing residential building on site, that will be converted to administrative offices and compacted road base to the residence. The administration building is away from the operational areas and includes staff parking (and one accessible parking spot) to ensure the safety of non- operational staff on-site.

High power is available to the Site, and an 8m x 2m pad mount substation will be located near the southern internal paved access road within part of the landscaped area.

The Site is not connected to Council's water or sewer networks and an on-site effluent management system has been designed for the Proposal.

An effluent design volume of 600 litres per day of sewage waste from the re-purposed dwelling into an administration building and staff amenities, and the amenities within the main workshop and gatehouse will be collected and treated in an existing AWTS unit that is located to the north of the existing dwelling building.

Secondary treated effluent from the AWTS unit will be directed to a primary and secondary surface irrigation disposal area to be located approximately 60 metres to the west of the AWTS unit with each to have a minimum 'effective application' area of 300m².

An existing 80,000-litre metal water tank located to the north of the dwelling will be supplemented with an additional 80,000L tank to supply potable demands.

Post approval, the proposed office will be assessed under the Building Code of Australia as to whether fire safety measures will be required.

2.7. Proposed Operating Hours

The proposed Site operations hours are:

- Monday to Friday between 6am – 6pm; and
- Saturdays from 7am – 4:30pm.

No operations are to occur on Site on Sunday and public holidays. No operation of the hammermill shredder and pre-shredder will occur during the morning shoulder period 6am-7am. Operations during this time include inbound and outbound truck movements, material handlers, and maintenance of plant and equipment. While maintenance and cleaning activities can occur at any time of the day (24 hours), to maintain the efficiency of operations, they will occur predominantly during:

- Monday to Saturday between 6am – 6pm; and
- Sundays on a 24-hour basis

2.8. Vehicles entering the Site

Vehicular access to the Site will be provided via three (3) driveways. One (1) driveway on the northern side of the Site will serve the administration office, one (1) driveway on the northern side will accommodate truck movements, and one (1) driveway on the southern side of Murrays Flat Road will be utilised by heavy vehicles during operational activities.

A newly constructed 22-metre-wide access driveway located adjacent to the administration office (to the north) will act as an entry and exit driveway for trucks only. A second access driveway located on the southern corner of the Site will be utilised as an exit-only driveway for trucks, with a width of 20 metres. These access arrangements are designed in accordance with AS2890.2:2018 and are considered adequate for heavy vehicle movements.

The existing access driveway is to be widened to allow two vehicles to pass each other and will serve staff and visitor vehicles, with a width of 5.8 metres, consistent with a low-volume (Category 1) access driveway in accordance with AS2890.1:2004 (Table 3.2). The existing driveway is located more than 6 metres from the tangent point of the adjacent kerb line, in accordance with Figure 3.1 of AS2890.1:2004.

All vehicular access is to be located and constructed in accordance with the approved design plans and relevant standards (AS2890.1:2004 and AS2890.2:2018), ensuring that vehicles are able to enter and exit the Site in a forward direction at all times. A clear sight line triangle (2.5 m x 2 m) is provided on the exit side of the driveway to maintain safe visibility between drivers and pedestrians.

2.9. Staffing

A maximum of fifteen (15) staff members will be on Site at any one time.

2.10. Plant and Equipment

The proposed development will utilise a range of stationary and mobile plant to support the metal recycling operations. The core processing line will include a pre-shredder, hammermill shredder, metal shear, eddy current separator, and oxy torch to undertake the mechanical and thermal reduction and separation of scrap metals. Material handling will be supported by two material handlers (30 tonne and 50 tonne), front-end loaders, and forklifts operating on hardstand surfaces to facilitate the movement of materials between processing stages.

In addition, semi-trailers and other heavy vehicles (maximum 20 m) will be used for the delivery and export of materials. AC units will also be installed to support temperature control and ventilation within enclosed structures. Plant and equipment have been selected to ensure the safe, efficient, and environmentally responsible operation of the facility, in line with best practice for scrap metal processing facilities. Refer to Figure 2.9 for the proposed site equipment plan.

2.11. Construction Equipment

During the construction phase, the Site will be equipped with a range of standard civil and industrial construction machinery suitable for bulk earthworks, foundation preparation, and installation of site infrastructure. Equipment is expected to include excavators, bulldozers, graders, front-end loaders, rollers, concrete mixers, water carts, and mobile cranes. Temporary generators, lighting towers, and construction vehicles such as tipper trucks and flatbeds will also be utilised for material delivery and on-site movement.

2.12. Parking

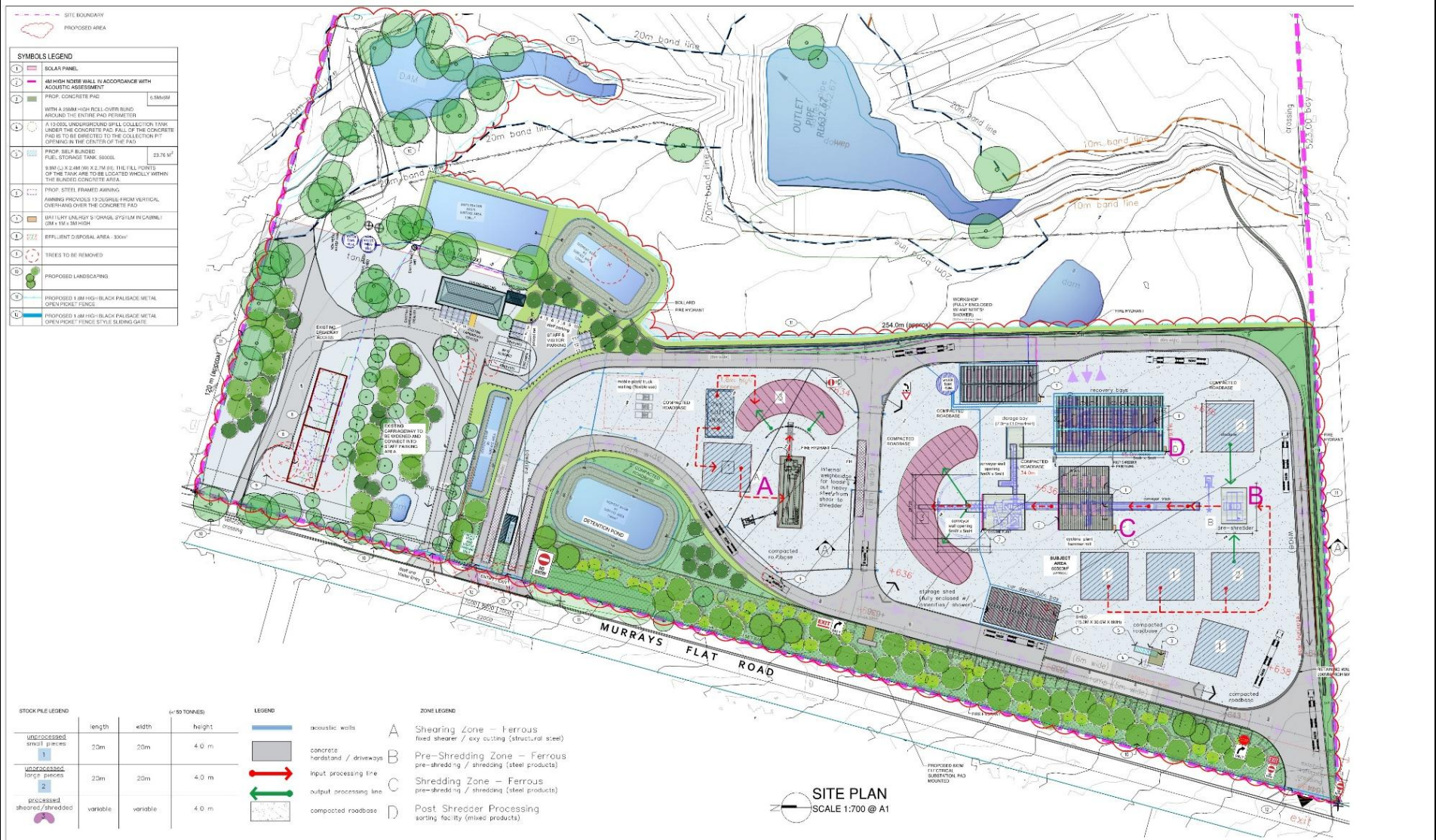
The proposed development will include a total of eighteen (18) off-street car parking spaces to support staff, maintenance, and delivery requirements. While the *Goulburn Mulwaree Development Control Plan 2009* does not specify parking rates for scrap metal recycling facilities, a reasonable provision has been adopted, comprising one space per employee (15 spaces) and three additional visitor spaces.

Of the total parking allocation, thirteen (13) spaces will be situated adjacent to the administration office for staff use, while five spaces will be positioned directly in front of the office building, designated for two staff and three visitor vehicles (including one accessible space with a shared zone).

As the Facility is not open to the public, visitor spaces are intended to accommodate office-related maintenance or deliveries. The parking design also considers manoeuvrability and access for heavy vehicles associated with processing up to 30,000 tonnes of scrap metal annually.

Accordingly, the proposed parking and loading/unloading arrangements are considered adequate to meet the operational needs of the development.

Figure 2.2. Site Plan. See Appendix 1 for the high resolution plans.



Date	Revision	Drawn By	Site description	JEP Environment & Planning		Client	Sydney Metal Traders
13/07/2025	Revision A	D.Estephan	88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP251779)	Strategy Approvals Compliance Licensing		Project	EIS
				A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060		Title	Elevation Plans
				E: admin@jacksonenvironment.com.au		Scale	1:564
				T: 02 8056 1849		Source	JEP Environment & Planning
				W: http://www.jacksonenvironment.com.au			

Figure 2.3. Site Elevation Plans. See Appendix 1 for the high resolution plan.



Figure 2.4. Awning Section A-A over the hammermill. See Appendix 1 for the high resolution plan.

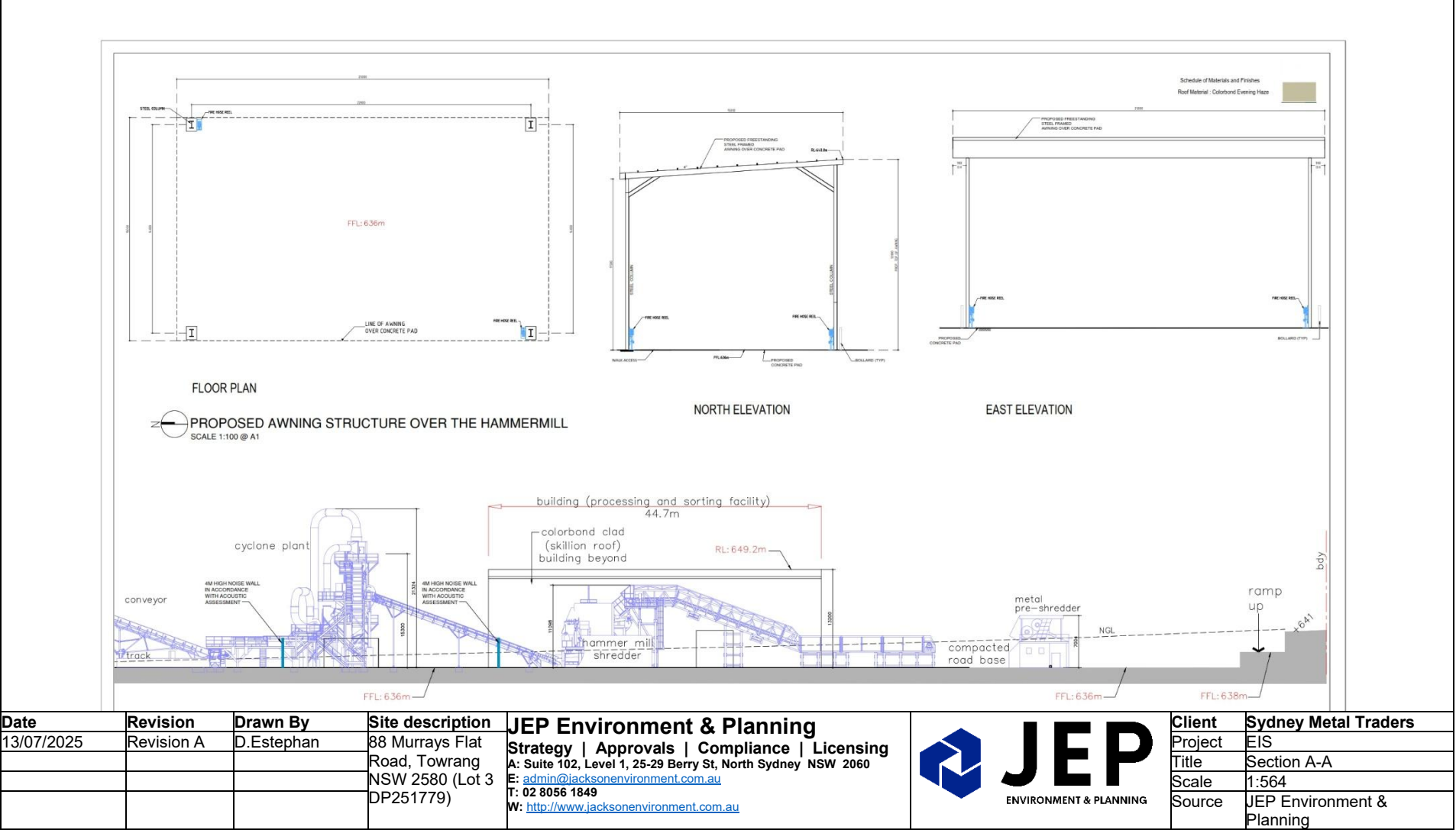


Figure 2.5. Hammer Mill Control Room Floor Plan. See Appendix 1 for the high resolution plan.

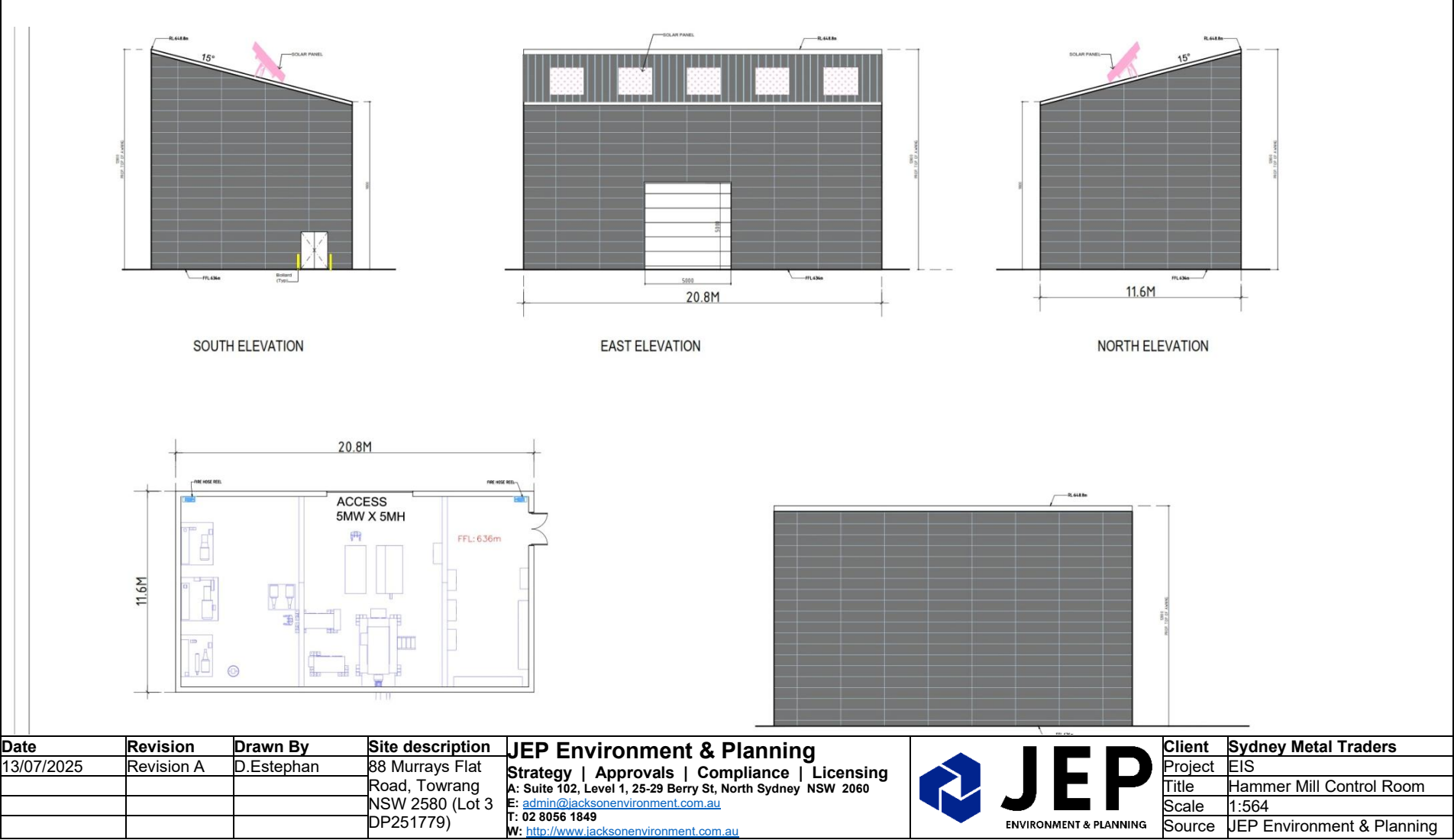


Figure 2.6. Gatehouse Floor Plan. See Appendix 1 for the high resolution plan.

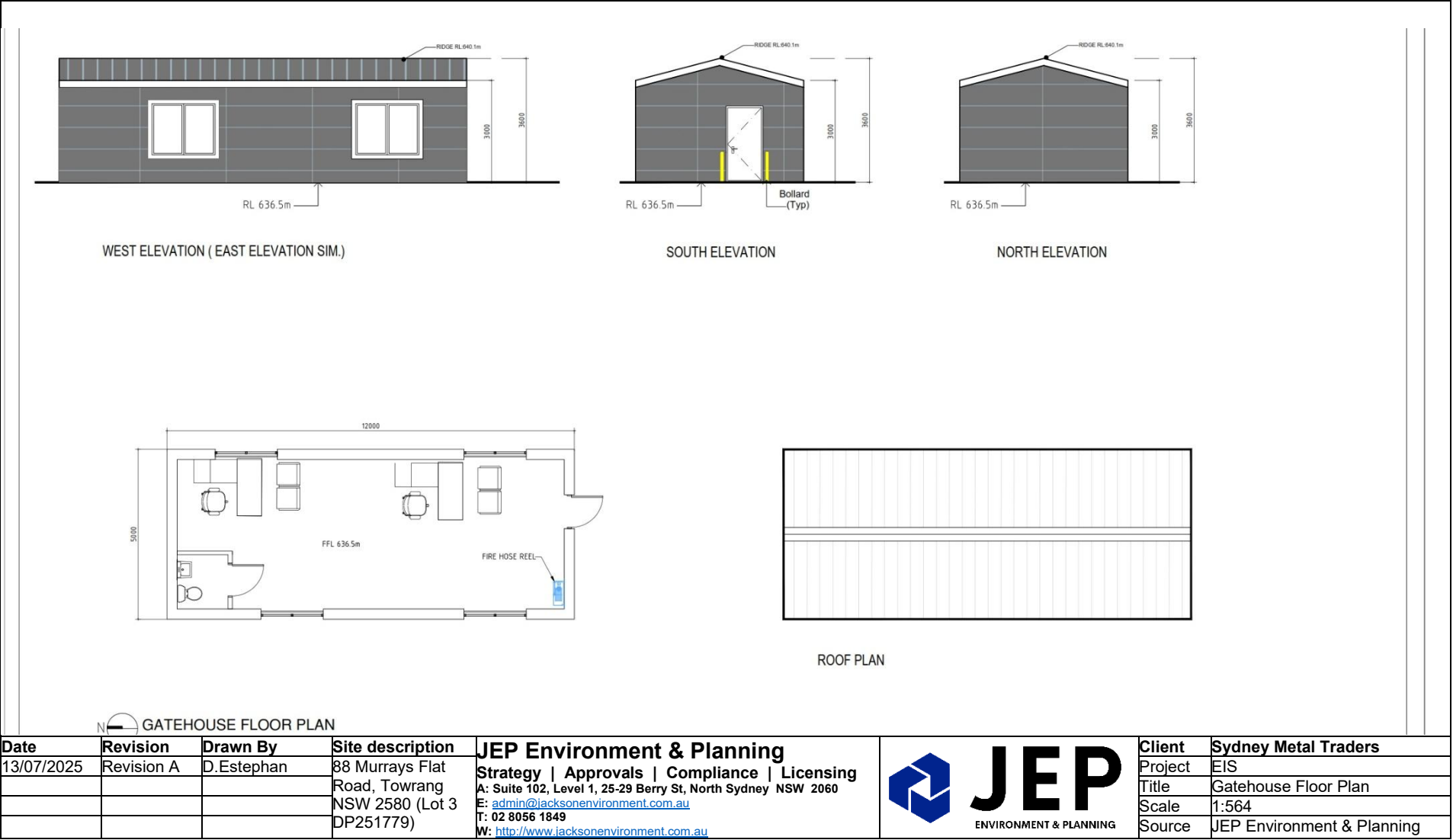


Figure 2.7. Workshop and Amenities – Floor Plan. See Appendix 1 for the high resolution plan.



Figure 2.8. Storage Shed and Depollution Floor Plan. See Appendix 1 for the high resolution plan.

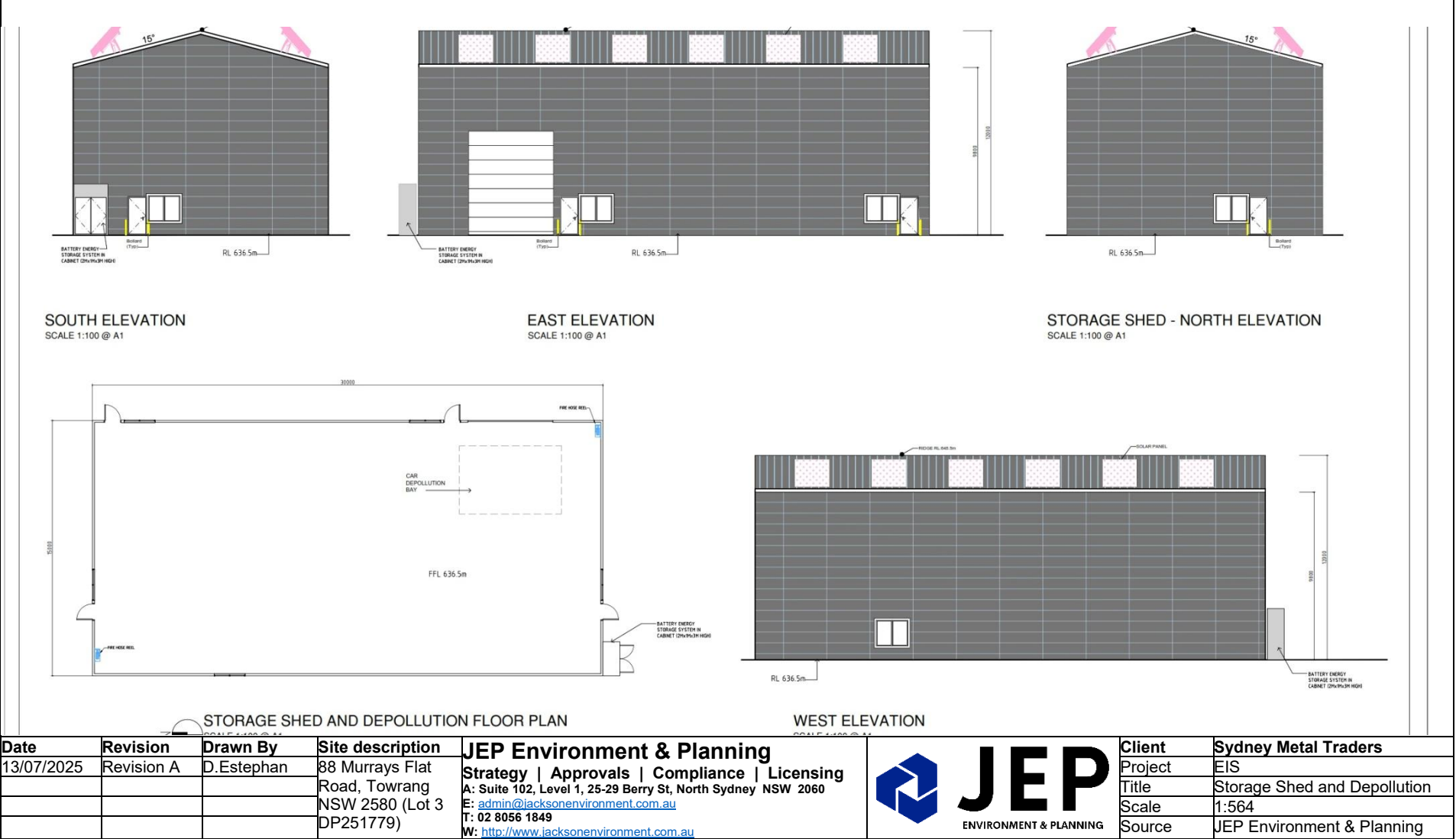
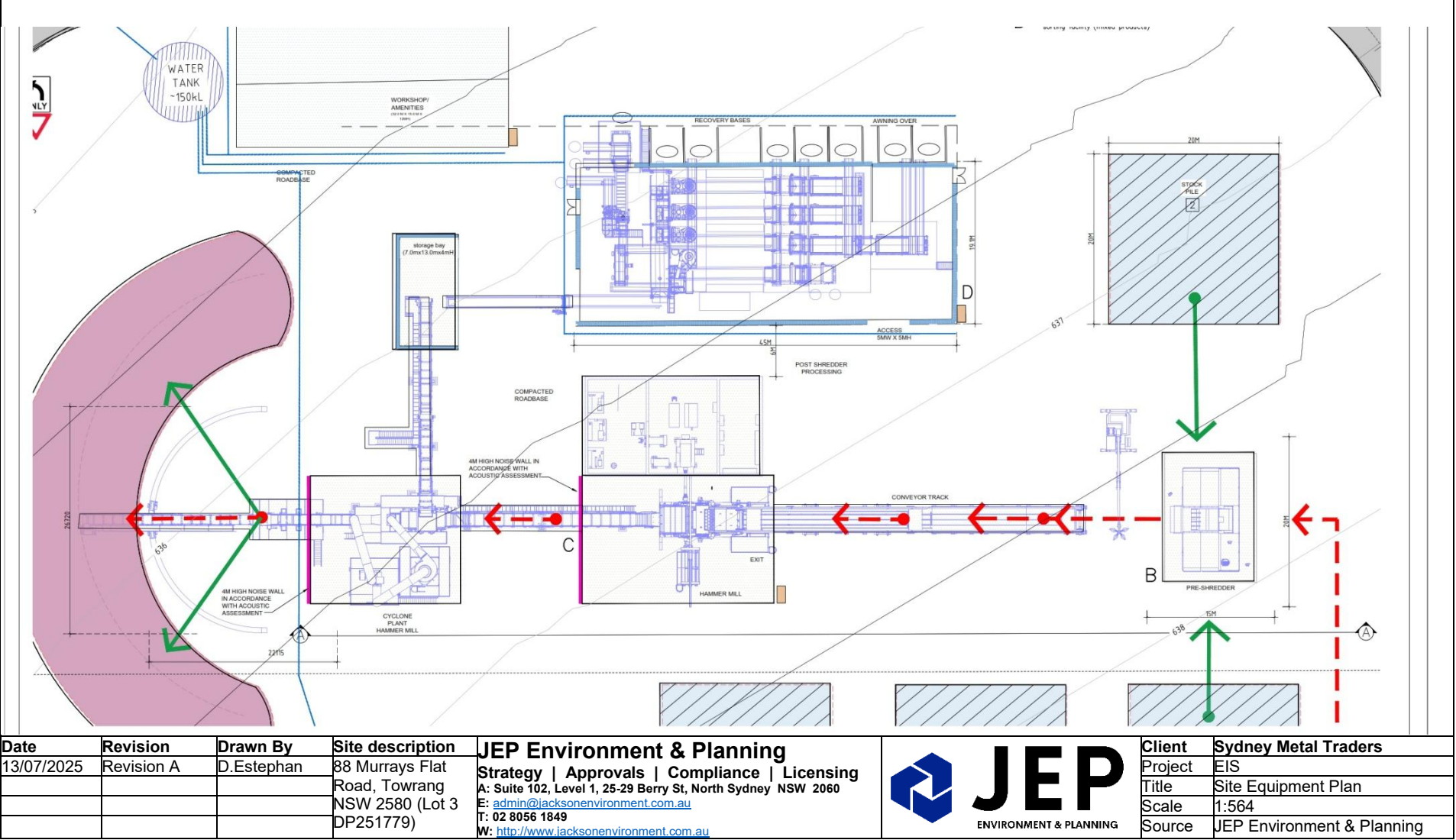


Figure 2.9. Site Equipment Plan. See Appendix 1 for the high resolution plan.



3. Planning and Legislative Requirements

3.1. Commonwealth Legislative

3.1.1. Environment Protection and Biodiversity Conservation Act 1999

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) came into force from 16 July 2000. The EPBC Act requires actions which are likely to have a significant impact on matters of National Environmental Significance, or which have a significant impact on Commonwealth land, to be referred to the Commonwealth Minister for the Environment for approval.

The Site is not listed as a national heritage place and the proposed development would not impact on any national heritage places. The proposed development would not impact on any threatened species or communities.

No National Environmental Significance matters would be impacted by the Proposal.

3.2. NSW State Legislative Requirements

3.2.1. Environmental Planning and Assessment Act 1979

Section 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the accompanying Regulation provide the framework for environmental planning in NSW. It includes provisions to ensure that proposals which have the potential to impact the environment are subject to detailed assessment and to provide opportunity for public involvement.

The proposed development is consistent with the overall objectives of the *Environmental Planning and Assessment Act 1979* and is considered capable of fulfilling the statutory requirements. Initial Site investigations indicate that the proposed development would not result in any significant negative impacts that cannot be adequately mitigated or managed.

The Proposal is a designated development requiring assessment under Part 4 of the *Environmental Planning and Assessment Act 1979* and the consent authority for the development will be Southern Regional Planning Panel.

3.2.2. Environmental Planning and Assessment Regulation 2021

While the EP&A Act provides the overarching framework for the planning system in NSW, the *Environmental Planning and Assessment Regulation 2021* (the EP&A Regulation) supports the day-to-day requirements of this system. It supplements the broader provisions of the Act and covers matters such as local environmental plans and development control plans, which are used by councils to manage growth and development using land use zoning, development standards and other planning mechanisms. It also contains key operational provisions relating to the development assessment and consent process, requirements associated with development contributions, and fees for planning services.

The proposed development will receive up to 30,000 tonnes of scrap metal per annum and is located in the Sydney Drinking Water Catchment, triggering the requirement for Designated Development under Clause 45(4)(c) of Schedule 3 of the *Environmental Planning and Assessment Regulation 2021*.

3.2.3. Protection of the Environment Operations Act 1997

The *Protection of the Environment Operation Act 1997* (POEO Act) prohibits any person from causing pollution of waters, or air and provides penalties for air, water and noise pollution offences. Section 48 of the Act requires a person to obtain an Environment Protection License (EPL) from the NSW Environment Protection Authority before carrying out any of the premise-based activities described in Schedule 1 of the Act.

The Site is approved for activities which are consistent with the definition of 'Scrap metal processing' as per Clause 26(1) in Schedule 1 of the *Protection of the Environment Operations Act 1997*:

Scrap metal processing, meaning the crushing, grinding, shredding or sorting (but not smelting) of scrap metal of any kind.

'Scrap metal processing' is defined under Clause 26 as a form of 'Metallurgical activity'. Under Clause 26(2) of Schedule 1 of the *Protection of the Environment Operations Act 1997*, thresholds for 'Scrap metal processing' include:

- Capacity to process more than 150 tonnes of scrap metal per day or 30,000 tonnes per year (if not carried out wholly indoors) or 50,000 tonnes per year (if carried out wholly indoors).

Exceedance of these thresholds triggers the requirement for an EPA licence.

The Site will receive principally scrap ferrous metal for sorting, size reduction and transport off-site for further recycling. Most operations are conducted outdoors.

The Site will process less than 150 tonnes per day of scrap metal and less than 30,000 tonnes per year. The Site is under the threshold and therefore an EPL is not required (as long as thresholds are not exceeded).

3.2.4. Protection of the Environment Operations (Waste) Regulation 2014

During 2013-14 the EPA carried out an extensive review and consultation process on NSW's waste regulatory framework. The result was the *Protection of the Environment Operations (Waste) Regulation 2014* (the Waste Regulation).

The Waste Regulation improves the EPA's ability to protect human health and the environment and paves the way for a modern and fair waste industry in NSW. The EPA rolled out the new rules stipulated under the Waste Regulation in stages over 2014-2017.

These changes include amended thresholds for environment protection licences and reforms to the waste levy system.

The Waste Regulation is supported by the Waste levy guidelines. These guidelines specify how to measure waste to calculate waste levy liability, the deductions waste operators can claim, and the EPA's requirements for records, surveys and reports. All licensed processing, disposal, recycling and storage facilities within the metropolitan levy area or regional levy area are subject to the levy system.

As the Proposal is defined as a 'Metallurgical activity' as per Schedule 1 of the *POEO Act 1997*, the Proposal is not a scheduled activity and is not a waste facility, meaning no weighbridge is required. However, three weighbridges are proposed for trade purposes.

3.3. NSW Environmental Planning Instruments and Policies

3.3.1. State Environmental Planning Policy (Biodiversity and Conservation) 2021

The State Environmental Planning Policy (Biodiversity and Conservation) 2021 incorporates previous SEPPs and Regional Environmental Plans relating to native vegetation clearing in urban and environmental areas, koala habitat protection, the Sydney drinking water catchment and the Hawkesbury-Nepean River. It also contains rules for koala habitat protection (essentially, the former provisions of both *State Environmental Planning Policy (Koala Habitat Protection) 2020* and *State Environmental Planning Policy (Koala Habitat Protection) 2021*).

The Proposal requires some clearing of vegetation however will not disturb the biodiversity values mapped area or waterways located to the east of the Site.

Part 6.5 Sydney Drinking Water Catchment

A consent authority must not grant consent to the carrying out of development under Part 4 of the Act on land in the Sydney drinking water catchment unless it is satisfied that the carrying out of the proposed development would have a neutral or beneficial effect on water quality.

Under Clause 10 of SEPP (SDWC) 2011 and for the purposes of determining whether the carrying out of the proposed development on land in the Sydney drinking water catchment would have a neutral or beneficial effect on water quality, the consent authority must, if the proposed development is one to which the NorBE Tool applies, undertake an assessment using that Tool.

A NorBE test has been prepared for the EIS as part of the stormwater and wastewater assessments forming part of the development application (see Sections 7 and 10 of this EIS and Appendices 4 and 8). The assessments concluded that the Proposal, with implementation of the recommended mitigation measures, will maintain water quality and comply with Water NSW's NorBE requirements.

Chapter 4 Koala Habitat Protection 2021

The principles of this chapter are to help koalas thrive by ensuring koala habitat is properly considered during the development assessment process, and to provide a process for councils to strategically manage koala habitat through the development of koala plans of management.

The Proposal is located on E4 General Industrial zoned land which has an area of at least 1 hectare (including adjoining land within the same ownership) and is within an LGA listed in Schedule 1 of the *Koala SEPP 2021*. Therefore Part 2(11) of *SEPP (Koala Habitat Protection) 2021* applies to the proposed development as the Proposal.

A Flora and Fauna Assessment prepared for the Proposal (see Appendix 15) determined that Site does not contain known or likely habitat for koalas, the Proposal would result in the loss of only a small number of native trees and there would be no or low impact on koalas or koala habitat. A summary of the Flora and Fauna Assessment is provided in Section 17 of the EIS.

3.3.2. State Environmental Planning Policy (Industry and Employment) 2021

The relevant aim of *State Environmental Planning Policy (Industry and Employment) 2021* (Industry SEPP) is to ensure that signage is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations and is of a high-quality finish and design. This Policy does not regulate the content of signage and does not require consent for a change in the content of signage.

Part 3.2 of the Industry SEPP details the requirements that a consent authority must be satisfied with prior to granting development consent:

A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:

- (a) that the signage is consistent with the objectives of this Policy as set out in clause 3.1 (1) (a), and*
- (b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 5.*

Part 3.7 of the Industry SEPP details advertisements to which this Part applies and states:

This Part applies to all signage to which this Policy applies, other than the following:

- (a) business identification signs,*
- (b) building identification signs,*
- (c) signage that, or the display of which, is exempt development under an environmental planning instrument that applies to it,*
- (d) signage on vehicles*

The Industry SEPP does not apply as the Proposal will only include business identification signage.

3.3.3. State Environmental Planning Policy (Planning Systems) 2021

State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP) aims to identify development that is State significant development, State significant infrastructure, critical State significant infrastructure or regionally significant development.

Under Schedule 6 of the of the Planning Systems SEPP, triggers for Regionally Significant Development are provided. Clause 25(a) sets out certain types of development which are classified as 'Private infrastructure and community facilities over \$5 million' to be regionally significant development. As 'waste or resource management facilities' are specified in this clause, development proposals of this type that have a capital cost of more than \$5 million trigger the requirements for Regionally Significant Development.

Given the proposed capital cost of the development is estimated to be \$26,994,466 million (excl GST), the proposed development is considered Regionally Significant Development. The application will need to be assessed by Goulburn Mulwaree Council and determined by the Southern Regional Planning Panel.

3.3.4. State Environmental Planning Policy (Resilience and Hazards) 2021

The *State Environmental Planning Policy (Resilience and Hazards) 2021* outlines the requirements for a Preliminary Hazard Analysis screening test, required to be undertaken for hazardous and potentially hazardous industries.

A potentially hazardous industry is defined within the Resilience and Hazards SEPP as a development for the purpose of any industry which, if the development were to operate without employing any measures to reduce or minimise its impact, would pose a significant risk to human health, life or property, or to the biophysical environment.

Part 3 of the Resilience and Hazards SEPP applies to:

- a) Development for the purposes of a potentially hazardous industry, and
- b) Development for the purposes of a potentially offensive industry, and
- c) Development notified, for the purposes of this Part, by the Director in the Gazette as being a potentially hazardous or potentially offensive development.

The Facility is not defined as a hazardous or offensive industry as any required mitigation measures to protect the environment and amenities has been designed into the project and will be implemented. In accordance with the Department of Urban Affairs and Planning guideline "Applying SEPP 33" a preliminary risk screening procedure has been undertaken as part of the EIS (see Section 19 and Appendix 17).

Under Clause 4.6 of the Resilience and Hazards SEPP applicants for consent must carry out a preliminary Site investigation for any development consent sought on land previously used for activities that may cause contamination.

A Preliminary Site Investigation (PSI) has been prepared to assess potential for contamination. Refer to Section 12 of this document and Appendix 10. Based on the Site history review and Site observations, the potential for significant unacceptable contamination to be present at the Site is low. However, the potential for isolated pockets of contamination to be encountered during the proposed earthworks cannot be precluded, which will be managed in accordance with an unexpected finds protocol.

The PSI determined that the Site is suitable for the proposed industrial/commercial land use, subject to:

- Remediation and offsite disposal of the oil spilled area inside the service shed; and
- Removal of the stockpiled soil and waste material and validation of the footprint.

3.3.5. State Environmental Planning Policy (Sustainable Buildings) 2022

The *State Environmental Planning Policy (Sustainable Buildings) 2022* (Sustainable Buildings SEPP) encourages the design and construction of more sustainable buildings across NSW to help NSW meet climate change targets and adapt to more extreme weather, such as hotter and drier summers.

Section 3.2 of the Sustainable Buildings SEPP applies to development consent for non-residential development. In deciding whether to grant development consent to non-residential development, the consent authority must consider whether the development is designed to enable the following—

- a) The minimisation of waste from associated demolition and construction, including by the choice and reuse of building materials;
- b) A reduction in peak demand for electricity, including through the use of energy efficient technology;
- c) A reduction in the reliance on artificial lighting and mechanical heating and cooling through passive design;
- d) The generation and storage of renewable energy;
- e) The metering and monitoring of energy consumption; and
- f) The minimisation of the consumption of potable water.

In addition, development consent must not be granted to non-residential development unless the consent authority is satisfied the embodied emissions attributable to the development have been quantified.

Section 3.1 of the Sustainable Buildings SEPP stipulates that these sections only apply to development, other than development for the purposes of residential accommodation, that involves:

- a) The erection of a new building, if the development has an estimated development cost of \$5 million or more; or
- b) Alterations, enlargement or extension of an existing building, if the development has an estimated development cost of \$10 million or more.

The Proposal has an estimated development cost of approximately \$26 million, triggering the application of Chapter 3 of the Sustainable Buildings SEPP.

A Sustainable Building SEPP Report has been prepared and is provided in Appendix 16 and summarised in Section 18 of this EIS.

3.3.6. State Environmental Planning Policy (Transport and Infrastructure) 2021

The aim of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Infrastructure SEPP) is to facilitate the effective delivery of infrastructure across NSW by improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and by providing greater flexibility in the location of infrastructure and service facilities.

Under Clause 2.152(1) of the Infrastructure SEPP, development for the purpose of waste or resource management facilities, other than development referred to in subclause (2), may be carried out by any person with consent on land in a prescribed zone. Prescribed include E4 General Industrial zoned land.

The Proposal meets the definition of a “Resource recovery facility” or a “Waste or resource transfer station” under Section 2.151 of the Infrastructure SEPP and is located on E4 General Industrial zoned land. Clause 2.121 of the Infrastructure SEPP specifies proposed development of particular size and capacity whereby a DA is required to be submitted to Transport for NSW for comment.

The Proposal will require concurrence of Transport for NSW due to the access to the Hume Motorway.

A Traffic and Parking Impact Assessment has been prepared for the Proposal and is including in Appendix 7. The assessment has directly addressed previous comments made by TfNSW and proposes design mitigation measures for the access from the Hume Highway into Murrays Flat Road and the Site. Refer to section 9 for a summary of the assessment.

3.4. Goulburn-Mulwaree Environmental Planning Instruments and Policies

3.4.1. Goulburn-Mulwaree Local Environmental Plan 2009

The *Goulburn Mulwaree Local Environmental Plan 2009* (LEP) is the local planning instrument applying to development within the Goulburn Mulwaree Council local government area.

3.4.1.1. Zone Objectives

The proposed development is located in E4 – General Industrial land. The objectives of E4 zoning are:

- To provide a range of industrial, warehouse, logistics and related land uses;
- To ensure the efficient and viable use of land for industrial uses;
- To minimise any adverse effect of industry on other land uses;
- To encourage employment opportunities; and
- To enable limited non-industrial land uses that provide facilities and services to meet the needs of businesses and workers.

3.4.1.2. Permissibility

The land is zoned E4 – General Industrial, and the development footprint of the Site occurs entirely within this zoning.

The land use proposed in adherence with the above objectives, which seek to encourage employment opportunities associated with an industrial use, and to ensure development is not likely to detrimentally affect the viability of any nearby residents or businesses.

The Proposal can be considered a type of “waste or resource management facility”, which is not prohibited in E4 zoning and is therefore permitted with consent.

The EIS will consider all potential amenity impacts associated with the proposed development and provide appropriate mitigating strategies, also in accordance with the zone objectives.

3.4.2. Goulburn-Mulwaree Development Control Plan 2009

The purpose of the *Goulburn Mulwaree Development Control Plan 2009* is to supplement the LEP by providing detailed reasoning, guidelines, controls and general information relating to the decision making process.

The proposed development is required to demonstrate full compliance the *Goulburn Mulwaree Development Control Plan 2009*.

Table 4.1. Relevant Goulburn Mulwaree Development Control Plan 2009 Specifications and Standards.

Part / Section	Controls	Compliance
3.1 Indigenous Heritage and Archaeology	A new Aboriginal due diligence and/or heritage impact assessment will need to be conducted, despite the existence of a previous Aboriginal due diligence and/or heritage impact assessment, less than 5 years old, for the same area, in the following circumstances: • The previous Aboriginal due diligence and/or heritage impact assessment did not involve a comprehensive assessment of the study area; • The Department of Environment and Heritage standards and guidelines under which the previous Aboriginal due diligence and/or heritage impact assessment was conducted have changed significantly and require a revision of the assessment report, and/or the re-conduct	Compliant. An Aboriginal Heritage Due Diligence Assessment is provided in section 16 of this EIS and Appendix 14. No known Aboriginal sites or objects occur within the Proposal area and the likelihood of encountering intact cultural deposits is low and no further archaeological investigation or AHIP is required prior to works.

Part / Section	Controls	Compliance
	of all or a component of the fieldwork assessment; - Aboriginal cultural heritage values which were not identified or predicted in the previous Aboriginal due diligence and/or heritage impact assessment have been identified within the development area. These may be the result of a new Site discovery, or arise from new oral history or documentary research; and - The area has been identified by an Aboriginal advisory committee, Council heritage staff, or the Department of Environment and Climate Change as requiring an Aboriginal due diligence and/or heritage impact assessment.	
3.2 European (Non-Indigenous) Heritage Conservation	The general objectives of this section the DCP are: - To conserve and enhance the heritage significance and qualities of heritage items, conservation areas and archaeological remains and relics. - To ensure that alterations, additions and new infill development are sympathetic, well designed and appropriate to the values of the heritage item or streetscape context in which it is located. - To preserve and maintain trees and other vegetation that contributes to the significance of heritage items and heritage conservation areas. - To ensure a thorough assessment process is applied for any proposed demolition or removal of a heritage item or building located within a heritage conservation area including the archival recording of these buildings where required. - To promote public awareness and education on heritage conservation.	Compliant. The Site does not contain any mapped or registered heritage values.
3.5 Landscaping		
3.5.1 Landscape Plan Design Requirements	Development proposals over \$250,000 value are to be accompanied by landscape plans prepared by a qualified landscape architect, designer or other suitably qualified person.	Compliant. A Landscape Concept Design has been prepared refer to Appendix 5 and Section 8.2.

Part / Section	Controls	Compliance
3.5.3 Non - residential Development	All major non-residential developments require a landscape plan (refer to Figure 3-6). Figure 3-4: Non-residential landscape planning	Compliant. A Landscape Concept Plan is provided in Appendix 5.
3.6 Vehicular access and parking		
3.6.1 Parking Layout, servicing and manoeuvring	The layout and design of access, parking and service areas should address the needs of the Site occupants and visitors as well as respecting the amenity of the area. Account should be taken of potential noise disturbance, pollution and light spillage. Car parking areas can have a significant impact on the streetscape and should therefore be carefully designed having regard to landscaping, layout and location to ensure that parking and service areas are integrated sympathetically with the development and locality. Provision should be made for various modes of transport for employees and visitors to the Site. Where parking is provided it must be in a safe and efficient manner, allowing for easy access for occupants, visitors and service vehicles, whilst ensuring the safety of pedestrians and other road users. Where non-residential development is within or adjoining a residential zone, locate and design parking areas, servicing areas and the means of access/egress to: • minimise conflict between non-residential, residential and pedestrian traffic; • provide off-street parking and servicing of premises; • respect the character of the existing residential areas and streetscape character by means of siting, design and landscaping.	Compliant. Access to and exit from the Site will be in a forward motion. Safe and sufficient maneuvering space and parking has been provided for both heavy and light vehicles. A Traffic and Parking Impact Assessment has been prepared refer to Section 9 and Appendix 7 and includes swept paths and compliance checks for all proposed vehicles that would use the Site.
3.6.2 Specific land use requirements	Off-street parking shall be calculated in accordance with Table 3-2 or you may take the option of undertaking a traffic impact and parking study. . Disabled standard will apply to most land uses at a rate of 1 space per 50 spaces or part thereof. The Building Code of Australia Part D prescribes the minimum requirements for the provision of parking spaces for people with disabilities. This plan does not relieve an applicant of any obligation to comply with the Building Code of Australia. Bicycle parking/racks should be considered for shopping and recreational developments.	Compliant. The proposed off-street car parking area provides a total of eighteen (18) on-site car parking spaces with thirteen (13) car parking spaces to be located next to the administration office for staff parking, and 5 spaces to be located directly in front of the administration office for two (2) staff and three (3) visitor car parking spaces (including 1

Part / Section	Controls	Compliance
		accessible parking space with an adjacent shared area). All parking is compliance with the relevant standards in AS AS2890.1:2004 and AS2890.1:2004. See Appendix 1 (Architectural Plans).
3.7 Crime Prevention through environmental design		
3.7.1 Lighting	Lighting plays a vital role in crime prevention and personal safety as you can see and respond to what is around you and ahead of you. Moreover, others can see you, which further reduce the likelihood of a crime being committed. The CPTED requirements outlined in the DCP apply.	Compliant. The Site will include appropriately designed lighting, security and parking. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment).
3.7.2 Fencing	If fencing is too high or made of inappropriate materials it reduces the opportunity for casual surveillance of the street and for users of the public domain to see what activities are taking place on your site. This then further increases the likelihood of a crime being committed. The CPTED requirements outlined for fencing in the DCP apply:	Compliant. The Site will include appropriately designed lighting, landscaping, security and parking. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment).
3.7.3 Car Parking	Poorly designed car parks whether underground or not can be a dangerous environment for their users. Through the provision of some basic design elements, such as lighting and signage, these spaces can be made safer. The CPTED requirements outlined in the DCP apply.	Compliant. The proposed off-street car parking area provides a total of eighteen (18) on-site car parking spaces with thirteen (13) car parking spaces to be located next to the administration office for staff parking, and 5 spaces to be located directly in front of the administration office for two (2) staff and three (3) visitor car parking spaces (including 1 accessible parking space with an adjacent shared area). All parking is compliance with the

Part / Section	Controls	Compliance
		relevant standards in AS AS2890.1:2004 and AS2890.1:2004. Access to and exit from the Site will be in a forward motion. A Traffic and Parking Impact Assessment has been prepared refer to Section 9 and Appendix 7. The Site is designed for pedestrian safety and separation of operational areas and administrative areas. See Appendix 1 (Architectural Plans).
3.7.4 Entrapment spots and blind corners	Entrapment spots and blind corners provide opportunities for perpetrators of crime to hide and or commit crime. The following CPTED requirements for the avoidance of entrapment spots and blind corners as outlined in the DCP apply.	Compliant. The Facility design includes appropriately designed lighting, security and parking. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment).
3.7.5 Landscaping	Trees and shrubs that are inappropriately located can easily reduce surveillance opportunities and provide entrapment spots and blind corners. The CPTED requirements for landscaping as outlined in the DCP apply:	Compliant. The Site will be appropriately landscaped including a 20m wide landscaping buffer along the frontage to Murray Flat Road, to ensure safety, screening from the public and amenity. The Site will include appropriately designed lighting, security and parking. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment).
3.7.6 Communal/public areas	Communal or public open space areas that do not have adequate natural surveillance are a risk to personal safety. The CPTED requirements for communal/public areas as outlined in the DCP apply.	Compliant. The Site will include appropriately designed lighting, security and parking. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape

Part / Section	Controls	Compliance
		Concept Plan) and Appendix 6 (Visual Impact Assessment).
3.7.7 Movement Predictors	Movement predictors are routes which people move through on a regular and predictable basis such as a pedestrian underpass. Careful design is needed to ensure that they are not included in a development or are appropriately treated where included to reduce the risk. Through Site links are another type of movement predictor, however, unlike under passes these can provide a benefit to the community if designed appropriately to ensure safety. The CPTED requirements for movement predictors as outlined in the DCP apply:	Compliant. The Site will be appropriately configured to ensure staff and visitor safety and safe access throughout the Site. The Site will include appropriately designed lighting, security and parking. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment).
3.7.8 Entrances	Entrances to all types of development that are not visible from the public domain provide an opportunity for perpetrators of crime to hide and or commit crime. Entrances to all types of development need to be clearly visible and legible so that the users can obtain entry quickly and expediently. The CPTED requirements for entrances as outlined in the DCP apply:	Compliant. The Site will include appropriately designed and signposted entry and exit for staff, visitors, deliveries and product export. Lighting, security and parking are designed appropriately. See Appendix 1, Appendix 5 and Appendix 6.
3.8 Flood affected lands		
3.8.2.1 Development outside of adopted flood study areas	Properties not yet identified in Council studies may still be flood affected. An assessment will be required to be submitted with any development application for potentially flood prone land.	Compliant. Site is outside the 1 in 100-year flood extent, but within the Probable Maximum Flood. The Flood Study confirms that the proposed development can be accommodated on the Site without increasing flood risk to the subject land or neighbouring properties. See Section 20 and Appendix 18 (Flood Study).
3.9 Tree and vegetation preservation		

Part / Section	Controls	Compliance
3.9.8.2 Assessment criteria	Council may issue a permit for the removal or pruning of trees or other native vegetation based on the criteria outlined in the DCP.	Compliant. A small amount of native vegetation will be removed and some areas of vegetation will be preserved along the northern extent of the Site. A Landscape Concept Plan prepared for the Proposal shows the trees planned for removal (see Appendix 5). A Flora and Fauna Assessment has been prepared and is included in Section 17 and full report is provided Appendix 15. The assessment concluded the Proposal is considered unlikely to result in a significant impact on biodiversity values.
3.11 Waterbody and wetland protection		
Controls	Applicants must have regard to clause 7.2 GM LEP 2009. Further information is available from Council on known wetland areas such as Lake Bathurst. The Morass, Wollogorang Lagoon, Narrambulla Creek, Breadalbane Plains and Roses lagoon are mapped as part of the Goulburn Mulwaree Biodiversity Strategy.	Compliant. The Proposal will be located greater than 40m away from any mapped waterways.
3.12 Groundwater		
Controls	Information is available from Council on potential groundwater areas (limestone). Applicants must consider the extent to which the development would affect the groundwater resources in terms of the: 1. potential for ongoing impacts through the operation of the development. 2. adequacy of the measures proposed to avoid, mitigate or remedy any adverse effects of the proposed development. 3. Development consent must not be granted to development unless the applicant has submitted a report with the development application that addresses, to the satisfaction of the consent authority, the following matters:	Compliant. Operational areas of the Site where metal processing occurs will be paved and an HDPE liner installed for groundwater protection. A stormwater collection and treatment system will be designed and installed for the Proposal. Groundwater interception is not expected based on the Geotechnical Report (see Appendix 25) and the proposed depth of excavation.

Part / Section	Controls	Compliance
	(a) characteristics of the groundwater present in the area, (b) any potential risk of groundwater, contamination from on-site storage or disposal of solid or liquid waste and chemicals, (c) any potential adverse cumulative impacts on groundwater including the impacts on groundwater extraction for potable water supply or stock water supply, (d) a description of any proposed measures to be undertaken to avoid or ameliorate any potential adverse impact. (e) that the extraction is environmentally sustainable, ie does not exceed re-charge Note: Groundwater extraction also requires consent from the Department of Primary Industries - Water.	See Section 10 and Appendix 8 (Water Cycle Study).
3.14 Biodiversity Management		
3.14.2 Riparian corridors	Category 3 A person must not take an action in or adjacent to lands mapped as Category 3 (10 metres from top of bank) where that action: • leads to a long-term adverse effect on good condition native vegetation within the riparian corridors, or • fragments an occurrence of vegetation within the corridor, or • destroys abiotic factors (such as water, nutrients or soil), or • results in invasive species that are harmful to riparian corridors becoming established in an occurrence of these lands, or • adversely affects the capacity of the riparian corridor, or • adversely affects water quality.	Compliant. No development is proposed within 40m of mapped waterways. The Site is located away from existing mapped Category 3 waterways and the Site includes stormwater capture and treatment systems. See Section 10 and Appendix 8 (Water Cycle Management Study).
3.16 Stormwater Pollution		
3.16.1 Long term pollution control,	To limit the amount of pollution entering waterways via stormwater, new development should implement such measures as: • Incorporate pervious portions into otherwise sealed areas, to allow water to infiltrate into the ground • Attempt to ‘fit’ development into the hydrology of the natural system	Compliant. The Site will include stormwater controls that will be detailed in the EIS. A Neutral or Beneficial Effect (NorBE) Test has been undertaken for water quality impacts. The proposal is compliant with

Part / Section	Controls	Compliance
	• Reduce the possibility of pollutants entering the stormwater by implementing erosion and sedimentation controls • Provide on-site detention to control peak stormwater flows. On-site detention, especially when used on unpaved or grass surfaces, can trap and remove contaminants from stormwater and increase infiltration into the ground. \ • Where an open space is a part of a development, investigate its dual use for site drainage by means of infiltration and/or delayed release to the stormwater system. Reference should also be made to <i>State Environmental Planning Policy Biodiversity and Conservation</i> (Chapter 8 Sydney drinking water catchment) 2021 and the Water NSW website, which outline the requirements for developments in the drinking water catchment and current recommended practices and performance standards endorsed or published by Water NSW that relate to the protection of water quality.	Water NSW NorBE requirements. Refer to Section 10 and Appendix 8 (Water Cycle Management Study). Operational maintenance will be included for the stormwater systems and an Operational Environmental Management Plan has been developed for the Proposal (see Appendix 20).
3.16.2 Short term pollution controls	During construction the potential to pollute is high. To reduce this risk Council may require: • On-site wheel and vehicle base cleaning facilities to reduce soil and contaminated material leaving the Site • Protection of as much existing vegetation as possible to reduce erosion • Storage of building materials on-site to minimise stormwater contamination To ensure all potential water pollutants are controlled and dealt with on-site, Council may require devices such as: • Effective bunding • Retention pits • Grease traps • Booms and trash racks • Silt and litter arrester pits • Situation ponds These lists are not exclusive and may vary as innovative products and methods are developed. The pollution of any water is prohibited. Discharges from premises of any matter, whether solid, liquid or gaseous into any waters is required to conform with the Protection of the Environment Operations Act 1997 and the Regulations, or an environment protection licence issued by the Environment Protection Authority for Scheduled Premises	Compliant. The Site will include stormwater controls as detailed in the EIS. A Neutral or Beneficial Effect (NorBE) Test has been undertaken for water quality impacts. The proposal is compliant with Water NSW NorBE requirements. A concept Soil and Water Management Plan has been developed for construction. Refer to Section 10 and Appendix 8 (Water Cycle Management Study).

Part / Section	Controls	Compliance
3.17 Bushfire risk management		
Controls	The Rural Fire Service advises that any development on bush fire prone land will be subject to the requirements of Section 79BA of the Environmental Planning and Assessment Act 1979 and Section 100B of the Rural Fires Act 1997.” Additionally, the following bushfire matters should be provided for in the planning stages of any development: • The future management regimes for any areas of hazard remaining within the subject area. This should focus on the level of hazard posed to future development by the land or adjacent land and how the hazard may change as a result of development. • Minimising the impact of radiant heat and direct flame contact by separating the development from the bush fire hazard by identifying the extent to which future development can provide for asset protection zones in accordance with Planning for Bush Fire Protection 2019. Setbacks will depend on proximity to vegetation, vegetation type and slope. • Substantial revegetation of a property, a riparian or wildlife corridor may increase bush fire risk to proposed or existing development. Any proposed revegetation should be undertaken in such a way that limits the spread and occurrence of fire. • A plan of management will need to include fuel management within the development and maintenance of asset protection zones in accordance with Planning for Bush Fire Protection 2019 and the Service’ s document ‘Standards for asset protection zones’. • Roads within new development areas are designed to comply with section 4.1.3 of Planning for Bush Fire Protection 2019.”	Compliant. The Proposal Site is located on Bushfire Prone Land. A Bushfire Assessment report (provided in Appendix 13) determined that the overall bushfire risk is low due to the separation distance between operational areas and hazard vegetation, existing cleared buffers, and proposed on-site firefighting infrastructure.
3.18 Urban Servicing (water and sewer)		
Controls	a) Due to current capacity issues at the Marulan Waste Water Treatment Plant further sewer connections will not be permitted until the new treatment plant has been commissioned. Therefore, further subdivision, or development beyond 1 equivalent tenement (ET) per existing lot cannot be supported until such time that capacity becomes available.	Compliant. Water and sewer requirements will be provided on-site and has been assessed in the EIS. A Wastewater Assessment report (see Appendix 4)

Part / Section	Controls	Compliance
	b) Alternatively, should any onsite-sewerage/waste water treatment system be proposed in a development application and installed prior to the commissioning of the upgraded Marulan WWTP it shall only be temporary. Connection is required to Council's system once the system is commissioned. (v) For un-serviced land the lot size quoted depends on a satisfactory detailed investigation of: a) Accumulative water quality issues associated with wastewater management of effluent disposal and stormwater disposal for the Proposal must be considered and assessed against State Environmental Planning Policy Biodiversity and Conservation 2021, Chapter 8 - (Sydney Drinking water Catchment). A Water cycle Management Study must be submitted with any development application demonstrating that on Site systems can achieve a neutral or beneficial effect on water quality. b) The provision of an adequate water supply to each lot for drinking (potable supply), ablutions and firefighting purposes. (Chapter 5.3 discusses development standards for individual rural dwellings and should be noted for the purpose of these investigations).	has confirmed adequate treatment and disposal capacity for the site's staff numbers and operational requirements. The proposed system complies with the NSW Health and Council On-site Sewage Management Guidelines and WaterNSW requirements and will ensure no adverse impact on groundwater or surface water quality. Potable water will be brought into Site separately.
4.2 Non-residential development - retail, commercial and industrial		
4.2.2 Design principles - industrial	Large blank wall surfaces visible from a public place (eg road) shall be articulated by structural variations and/or blend of external finishes. Prominent elevations and 'areas of visual importance' are to have a building form of significant architectural and design merit, with special attention to scale, form, external finishes, setbacks, height limits and landscaping. Areas of visual importance include: • gateway entries to the City, township or village • developments than can be viewed from residential and public areas • Heritage Conservation Area and heritage items Prominent elevations include: • arterial road frontage • public reserve exposure. • Visual	Compliant. The Proposal has been designed and located to account for DCP setbacks and visual aesthetics of the local and regional context. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment).

Part / Section	Controls	Compliance
4.2.3 Visual quality - industrial	External storage areas shall not be visible from a public place. External storage areas are to be: - located behind a building, or - suitably screened (with dense landscaping and/or solid fencing); In assessing development applications involving external storage of goods, Council shall take into consideration: - height and arrangement of stored goods - safety issues - access arrangements - aesthetics and ease of maintenance	Compliant. The Proposal has been designed and placed to account for DCP setbacks and visual aesthetics of the local and regional context. See Appendix 1 (Architectural Plans),
4.2.4 Building setbacks - industrial	All setback areas are to be landscaped (refer to Figure 4-11). No parking will be permitted within setback areas. Minimum requirements: - frontage - 6 metres; - side and rear - setbacks required for corner allotments (secondary road frontage) and in areas of visual importance. Note: Setback distances are proportionally related to required building materials so as to satisfy wall fire ratings - refer to Building Code of Australia for details.	Compliant. The Proposal and the landscaping has been designed and placed to account for DCP setbacks and visual aesthetics of the local and regional context. See Appendix 1 (Architectural Plans) and Appendix 5 (Landscape Concept Plan).
4.2.5 Height - Industrial	On land not affected by the height of building maps, no height limit is specified, however the height (as defined above), shall take into account and address the following matters in the development application's statement of environmental effects: - the proposed height is in keeping with the character of the locality - it is not visually obtrusive - the height is required due to the nature of the Proposal - the overall design, including landscaping and building materials, reduces the impact of height and bulk	Compliant. The Proposal will be designed and placed to account for DCP setbacks height and visual aesthetics of the local and regional context. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and Appendix 6 (Visual Impact Assessment).
4.2.6 External materials and finishes - industrial	The external walls of industrial buildings shall be profiled colour treated cladding or masonry materials, or a combination of both and incorporate visual relief elements. Particular consideration shall be given to the design and use of materials for the street elevation of industrial buildings. Where the side or rear elevation of an industrial building is visible from residential or public areas, colours and wall profiles should be selected to minimise their visual impact.	Compliant. The Proposal will be designed and placed to account for materials and visual aesthetics of the local and regional context. See Appendix 1 (Architectural Plans), Appendix 5 (Landscape Concept Plan) and

Part / Section	Controls	Compliance
		Appendix 6 (Visual Impact Assessment).
4.2.7 Noise and vibration - general requirements	Council recommends applicants utilise the following documents to assist them in making decisions relating to acceptable noise levels for noise generating and noise sensitive developments: • NSW Industrial Noise Policy • Environmental Criteria for Road Traffic Noise • Noise Guide for Local Government	Compliant. The Proposal includes mitigation measures as necessary to control noise and vibration impacts. A Noise and Vibration Assessment is provided in Appendix 3 and found that predicted sound levels at surrounding receptors would comply with relevant noise and vibration criteria.
4.2.8 Air pollution - industrial	The operation of any new premises and any machinery or plant to be installed or any process to be used must not cause emissions contrary to the Protection of the Environment Operations Act 1997 and Regulations. Applicants will need to demonstrate that these standards are met. Approvals may also be required from the NSW Environment Protection Authority for some types of development. Machinery and operations should be designed to minimise the emission of air impurities. This includes minimising vehicular movements to and from the Site. Restricting the hours of operation may reduce any emissions to an acceptable level.	Compliant. The Proposal includes mitigation as necessary to control potential impacts to air quality. An Air Quality Impact Assessment provided in Appendix 9 has determined that the Proposal will not cause exceedances of ambient air quality goals at nearby sensitive receptors
7 Engineering requirements		
7.1 Utility services	Applicants are to provide connections to the following services where available to the Site - water, sewerage, gas, telephone and electricity, on site. Applicants are advised to liaise with the AGL (gas), Telstra (telephone), Country Energy (electricity) and Council (water and sewer) or other accredited provider as to the availability of these services, prior to submission of development applications. Sewerage and water supply design to be in accordance with the Standards for Engineering Works, July 1996. Rainwater tanks are to be provided in accordance with Council Policy. Council is not averse to applicants supplying their own power supply, provided that Country Energy approve the alternate power source.	Compliant. Power, water and sewer is required for the Proposal and has been assessed in the EIS (see Section 2.6).

Part / Section	Controls	Compliance
	Council may require as a condition of its consent, prior to release of Certificates or plans, that satisfactory arrangements be made for the provision of a reticulated electricity supply, telephone services and a reticulated natural gas supply.	
7.2 Roads (7.2.3 Heavy vehicle haulage development routes)	Route selection for heavy vehicle haulage developments Principal haulage routes needs to be nominated when submitting a development application for a heavy vehicle haulage development. The applicant needs to justify selection of the haulage route based upon traffic engineering grounds, amenity considerations and availability of alternative options (i.e. rail). If the existing road network is unsatisfactory then upgrades will be required. The following matters should be addressed in a development application: 1) Impact on the road network: 2) Impact on amenity and the environment - Haulage Route standards for heavy vehicle haulage developments The following road standard for haulage routes is required: • 7m wide sealed carriageways in rural areas • In addition to the carriageway, 1m wide shoulders on each side with a 500mm seal • 80km/h design standard • 9m wide culverts and bridges (i.e. from barrier to barrier). • Minimum remaining pavement life of 10 years at the time of commencement of operations • Asphaltic concrete surface in village areas. Note: Intersection upgrades may also be required to accommodate turning paths for heavy vehicles.	Compliant. Heavy vehicles will access the Proposal Site. A Traffic and Parking Impact Assessment is provided in Appendix 7. The Proposal will not have adverse impacts on existing traffic, parking conditions or access amenities of the area. Upgraded site access and exit points, together with the proposed intersection improvements at the Hume/Murrays Road intersection, will ensure safe and efficient operation. Haul routes and hours of operations have been determined (see Section 2.7 and Section 9.2.1, respectively). Amenity of the local area and environmental impacts have been comprehensively assessed in this EIS. The Proposal is considered suitable for approval (see Sections 4 and 24)
7.3 Drainage and soil and water management (7.3.3 Soil and water management)	Development proposals where the area of disturbance is less than 2500m² require an Erosion and Sediment Control Plan (ESCP) (written document and Site diagrams) that indicates measures to minimise erosion and sedimentation. Development proposals where the area of disturbance is 2500m² or greater should be accompanied by a Soil and Water Management	Compliant. Drainage and stormwater runoff controls designs have been prepared for the Proposal. A concept Soil and Water Management Plan (SWMP) has also been prepared for the Proposal as the Site is

Part / Section	Controls	Compliance
	Plan (SWMP) (written document and Site diagrams), prepared by a suitably qualified person(s), that clearly identifies the constraints of soil erosion, sediment pollution and stormwater pollution.	greater than 2,500 square metres. See Section 10 and Appendix 8 (Water Cycle Management Study).
7.4 Easement	a) Easements shall be required pursuant to section 88B of the Conveyancing Act 1919, as follows: • sewerage and water supply easements shall be created over all existing and proposed sewer and water lines • where applicable, easements for batter and support shall be created over lots in accordance with approved engineering plans ♣ all existing and proposed rights of carriageway shall be legalised • easements for electricity purposes, if required, shall be created over existing and proposed electricity lines • drainage reserves (or easements in exceptional circumstances) shall be created over proposed stormwater drainage lines (including floodways), in accordance with the Council's standards ♣ easements and reserves shall be dedicated to Council free of cost and appropriately indicated on the plan of subdivision	Compliant. A 20m wide right of carriageway located on the northern border of the Site will be maintained. No development is proposed in the existing easement. No additional easements are deemed necessary.

3.5. Other Applicable Legislation or Strategies

3.5.1. Fire and Rescue NSW – Fire Safety Guidelines – Fire Safety in Waste Facilities

Fire & Rescue NSW (FRNSW) published guidelines to provide guidance on fire safety in waste facilities that receive combustible waste material, including provisions for fire safety and safe fire brigade intervention to protect life, property and the environment.

The guidelines detail the requirements of FRNSW for waste facilities including:

- Consideration of fire safety including site selection, planning, design, assessment and operation;
- Fire safety systems to be adequate to special hazards identified within a waste facility and which also meet the operational needs of firefighters;
- Safe storage and stockpiling of combustible waste material based on expected combustibility and maximum pile size; and
- Workplace fire safety and fire safety planning, including procedures for the event of fire or emergency incident.

A Fire Safety Study (FSS) has been prepared for the EIS and included with the development application. Refer to Section 14 of this EIS and Appendix 12.

The FSS has assessed the potential for fire risks at the Site to determine whether the fire detection, prevention, protection and mitigation measures are adequate for the Site. Where improvements could be made these are documented as recommendations.

The FSS concluded that the designs and proposed fire protections can adequately manage the risks, subject to the recommended mitigation measures.

4. Strategic Drivers

4.1. Government strategies, policies or plans

4.1.1. NSW EPA Strategic Plan 2024 -2029

The NSW State Government continues its commitment to ambitious environmental goals, as outlined in the *NSW EPA Strategic Plan 2024–2029*. This five-year plan builds upon previous strategic frameworks and aligns with broader initiatives such as the NSW Government's Net Zero Plan, *Waste and Sustainable Materials Strategy 2041*, and *Climate Change Action Plan 2023–2026*. The plan identifies key areas of environmental stewardship, including land, water, air, and community health, with a strong emphasis on Aboriginal knowledges and collaboration. Of particular relevance to waste management and recycling is the EPA's focus on enabling a safe circular economy.

The plan outlines the transition from a 'take, make, dispose' system to a sustainable circular economy, with objectives to minimise harm from waste, create resilient systems for material reuse, and drive market development for recycled goods. Outcomes also include reducing greenhouse gas emissions and increasing community and industry engagement in sustainable resource practices. The strategy underpins regulation, infrastructure investment, and behavioural change, reinforcing the EPA's role in leading NSW toward a more sustainable and prosperous future.

The Proposal provides an avenue to reduce and minimise waste by providing a facility for businesses to supply a stream of scrap metal waste for sorting and recycling for use in future products, thus contributing to the circular economy.

4.1.2. NSW Waste and Sustainable Materials Strategy 2041

The *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027* is the recent update to the *NSW Waste Avoidance and Resource Recovery Strategy 2014–21*. It sets out the long-term vision for managing waste, planning for infrastructure, reducing carbon emissions, creating jobs, and refocusing the way NSW produces, consumes and recycles products and materials. The strategy will be used to track, review and measure NSW's progress toward meeting the targets set out in the National Waste Policy Action Plan. The targets are to:

- Reduce total waste generated by 10% per person by 2030;
- Have an 80% average recovery rate from all waste streams by 2030;
- Significantly increase the use of recycled content by governments and industry;
- Phase out problematic and unnecessary plastics by 2025; and
- Halve the amount of organic waste sent to landfill by 2030.

In addition to the above National targets, NSW has committed to:

- Introduce a new overall litter reduction target of 60% by 2030;
- Introduce a plastic litter reduction target of 30% by 2025, as set out in the NSW Plastics Action Plan;
- Set a goal to triple the plastics recycling rate by 2030, as set out in the NSW Plastics Action Plan;
- Reaffirm NSW's commitment to the goal of net zero emissions from organic waste by 2030, as laid out in the NSW Net Zero Plan Stage 1: 2020–2030;
- Establish new indicators to help track NSW's progress on infrastructure investment and the cost of waste services; and
- Develop a new measure of the emissions performance of NSW's waste and materials management. This will help to track performance across the lifecycle of materials.

A major focus area of the strategy is to increase waste infrastructure and services to meet future needs. The highest priority is to extend the life of existing landfills by reducing the volumes of waste being sent to landfill. Whilst the main focus is on waste avoidance, improving recycling capacity is an important aspect of waste management.

The proposed development will commit to environmental sustainability, waste avoidance and reduction practices. The proposed development will increase and expand recycling infrastructure in the Goulburn region and will make an important contribution to meeting the waste targets under the *NSW Waste and Sustainable Materials Strategy 2041*.

4.1.3. NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs

The *NSW Waste and Sustainable Materials Strategy: A Guide to Future Infrastructure Needs* is a supplement to the *NSW Waste and Sustainable Materials Strategy 2041*. The guide outlines the emerging needs in NSW's waste and circular economy infrastructure network. The needs have been grouped by material types with a focus on materials commonly found in municipal solid waste (MSW) and commercial and industrial (C&I) waste streams. Significant gaps exist in the system for the reprocessing of some of these materials that have historically been exported for processing.

The guide sets out how the NSW Government will support the development of new infrastructure through facilitating infrastructure, e.g., through planning activities; investing in high priority projects; strategically planning for infrastructure with local communities; and aligning policy and regulation with the Strategy. The three key areas of focus, based on extensive analysis of material flows, current and planned capacity and proposed policy changes, are residual waste, organics and plastics.

The guide specifically addresses the current market, processing capacity, throughput and future needs, and the opportunities and challenges associated with processing waste materials across NSW.

Sydney Metal Traders is investing more than \$26 million into the NSW economy to develop the recycling infrastructure, helping to create new jobs, economic activity and supporting local communities. The investment will help bring forward more than 30,000 tonnes per annum of new recycling capacity in NSW, which will help accelerate progress towards landfill diversion targets.

4.1.4. The National Waste Policy 2018

The 2024 National Waste Policy Action Plan sets out where Australia must focus its efforts to transition to a safe circular economy. It was developed in line with the 2018 National Waste Policy. These targets and actions will guide investment and national efforts to 2030 and beyond. These include:

- Ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020;
- Reduce total waste generated in Australia by 10% per person by 2030;
- 80% average recovery rate from all waste streams by 2030;
- Significantly increase the use of recycled content by governments and industry;
- Continued Phase out problematic and unnecessary plastics
- Halve the amount of organic waste sent to landfill by 2030; and
- Make comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions.

The proposed development complements and supports the implementation of better waste management targets and actions as set out in *The National Waste Policy Action Plan 2024*.

4.1.5. NSW Circular Economy Policy Statement

The NSW Government has developed a Circular Economy Policy to deliver positive economic, social and environmental outcomes.

The circular economy is about changing the way we produce, assemble, sell and use products to minimise waste and to reduce our environmental impact. The circular economy can also be great for business; by maximising the use of our valuable resources, and by contributing to innovation, growth and job creation.

Moving to a circular economy will provide long-term economic, social, and environmental benefits for NSW. This transition will generate jobs, increase the robustness of the economy, increase the accessibility of goods, maximise the value of resources, and reduce waste.

The NSW Circular Economy Policy Statement will help guide NSW Government decision making to transition to a circular economy. It sets the ambition and approach for a circular economy in NSW and provides principles to guide resource use and management.

The NSW Circular Economy Policy Statement will provide a framework for implementing initiatives throughout the product life cycle, from design, manufacturing, and retail to end-of-life-disposal. These initiatives will promote long-lasting design, maintenance, repair, re-use, sharing, transforming products into services, remanufacturing, and recycling. The NSW Government will be an early adopter, implementing those opportunities where the benefits are clear.

The Proposal is an outstanding example of the circular economy in action focusing on the recovery of scrap metals from business and industry. These metals will be further recovered and used in manufacturing, creating jobs, reducing the demand for virgin metals from mining and will reduce the life cycle impacts of scrap metal on the environment.

4.1.6. Goulburn Mulwaree Employment Land Strategy 2016

The *Goulburn Mulwaree Employment Land Strategy 2016* (GMELS) provides a strategic planning approach for Employment Lands in the Goulburn Mulwaree LGA. The Strategy guides future decision-making by Council and other stakeholders.

The GMELS identifies the industrial zoning on Murrays Flat Road in Towrang as strategic for a number of reasons, including its proximity to the Hume Highway in the north and the railway line in the south. However also identifies safe access on and off the highway is problematic.

The GMELS identifies the Council owned land along Murrays Flat Road as a potential catalyst for future development as a short-term goal. A long-term goal is identified as investigating opportunities for increasing connectivity to this Precinct by either rail or road in conjunction with appropriate stakeholders.

The Proposal provides strategic solutions for increasing the safety and nature of Murrays Flat Road intersection with the Hume Highway, whilst enhancing the industrial profile of the Goulburn Mulwaree Council area.

4.2. Sustainability

4.2.1. Environmental

The proposed development considers environmental best practice and sustainability to reduce the impact of the development on the environment. The following features are built into the design of the site:

- The metal sources received at the Site for processing will have all oils and fuels removed and safely managed to ensure any amounts of these materials are handled and disposed of lawfully and at a facility licensed to accept that material;
- The car de-pollution system will be installed in a designated shed and contained area to remove fuels, oils and other non-compliant, hazardous and or combustible materials from the cars that are received for metals recovery;
- Dust extraction controls will be fitted strategically to minimise the air quality impacts of the metal shredding operation;
- Water sensitive urban design features are incorporated into the development design to protect water quality, and all stormwater runoff will be intercepted and treated through a series of detention and treatment facilities for reducing sediment, nutrients and hydrocarbons removal from runoff;

- For groundwater protection, an HDPE liner will be installed in all areas where metals are received, processed and stored;
- Only highly treated stormwater will be permitted to leave the development area to ensure the development can demonstrate a Neutral or Beneficial Effect (NorBE) on water quality in accordance with Part 6.5 of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021*;
- A radiation detector will be placed at the entrance to monitor all incoming trucks for radioactive materials;
- Roof areas will be used for solar PV panels with provision for battery storage, allowing the facility to offset daytime demand and reduce reliance on grid supply; and
- Treated stormwater will be beneficially used across the Site for dust control and irrigation of landscaped areas.

4.2.2. Social and Economic Benefits

4.2.2.1. Economic Benefits

The Facility will represent a major piece of infrastructure that will assist in creating jobs within Goulburn and Southern Tablelands region. The project has the capacity to inject over \$26 million into the local economy in construction costs alone.

The project will provide an estimated ten (10) jobs during the construction period over a 6-month period. Sydney Metal Traders will create fifteen (15) new ongoing jobs as part of the project. The project will therefore make an important contribution to the Goulburn Mulwaree LGA, Southern Tablelands and regional economy.

4.2.2.2. Social Benefits

The project will create up to 15 new local employment positions within the community. NSW has an unemployment rate was at 4.6%, according to the Labour Force Survey February 2022, whereas the Goulburn Mulwaree Council's unemployment rate was at 6.4% in September 2021, according to the regional economic profile. The project will also deliver educational and demonstration opportunities for the promotion of sustainable waste management practices.

4.3. Site suitability and analysis of alternatives

Table 4.1 provides an analysis of the suitability of the Site for the proposed development and provides justification for the Site selection. As the environmental assessment of the proposed development has confirmed that any potential impacts to the environment and human health can be adequately mitigated, no other sites were considered for the proposed development.

Table 4.1. Suitability of the Site to accommodate the proposed development.

Consideration	Justification
Site and Site layout	The Site comprises 32.26 ha of E4 – General Industrial zoned land which is suitable for the proposed metal recycling facility. The layout provides a clear separation of operational zones, including ferrous and non-ferrous processing, shredding, post-shredder sorting, and stockpiling, with dedicated enclosed structures such as the shredder shed, storage shed, and workshop with amenities. Supporting infrastructure, including effluent disposal areas, sediment and biofiltration basins, HDPE lined operational areas and bunded fuel storage, is integrated within the layout to minimise off-site environmental impacts.
Access and Routes	Access to the Site is via Murrays Flat Road, with upgraded driveways designed for safe entry and exit of both staff vehicles and heavy trucks, supported by key intersection improvements at the Hume Highway to address TfNSW safety concerns. The arrangement meets Austroads and AS2890 standards, accommodates articulated vehicles without reversing, and is expected to generate minimal additional traffic, which can be absorbed by the existing road network.
Materials handling and production process	The Facility is designed to process up to 30,000 tonnes of ferrous and non-ferrous metals annually through a sequence of receipt, sorting, shearing, pre-shredding, shredding, and

Consideration	Justification
	downstream separation, with floc (20–30% of inputs) contained in banded bays for off-site disposal at licensed facilities.
Waste and water management	The Facility incorporates a comprehensive stormwater and wastewater system, including lined sedimentation basins, rainwater harvesting tanks, diversion swales, and a biofiltration raingarden. These measures collectively achieve WaterNSW's Neutral or Beneficial Effect (NorBE) standard, reducing suspended solids, nitrogen, and phosphorus by more than 10%, post development while ensuring pollutants (including heavy metals, oil, and grease) are captured and treated before discharge.
Energy sources	The Facility will use grid electricity supported by efficiency measures including high-efficiency motors with variable speed drives, staged start-up sequencing, LED lighting with smart controls, and passive design to reduce demand. Roof areas are reserved for solar PV panels with provision for battery storage, allowing the facility to offset daytime demand and reduce reliance on grid supply.

5. Consultation

A Community and Stakeholder Engagement Program has been undertaken to assist in the preparation of the EIS. This section provides an overview of stakeholder engagement and community consultation done for the Proposal, a description of the stakeholder engagement activities undertaken and a summary of the findings that have been incorporated into this EIS. Refer to Appendix 2 for full consultation package.

5.1. SEARs Consultation Requirement

The NSW Department of Planning and Environment's Secretary's Environmental Assessment Requirements (SEAR 2038) (see Appendix 24) requires direct consultation in support of the development application. The SEARs Consultation Requirements outline that:

During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the:

- *NSW Environment Protection Authority;*
- *Transport for NSW;*
- *Fire & Rescue NSW;*
- *WaterNSW;*
- *Pejar Local Aboriginal Land Council;*
- *Goulburn Mulwaree Council; and*
- *The surrounding landowners and occupiers that are likely to be impacted by the proposal.*

Details of the consultation carried out and issues raised must be included in the EIS.

A Community and Stakeholder Consultation Report (CSCR) (Appendix 3) has been prepared to inform stakeholder and community consultation for the Proposal. The CSCR provides details of stakeholder engagement methods, the level of engagement that has occurred and the responses from the stakeholders that have been addressed in this EIS.

5.2. Government Consultation

Consultation was undertaken with the required Government agencies during the preparation of this EIS to seek any additional agency requirements and to seek feedback on the Proposal. Each agency was sent a letter of invitation to provide input on key matters that requirement assessment. Agencies were provided with a copy of:

- Proposal Fact Sheet; and
- Scoping Report for the Proposal.

The sections below summarise the key requirements outlined in both the SEAR 2038 and any further comments provided by agency stakeholders including how they have been addressed in the EIS.

5.2.1. NSW Environment Protection Authority

The NSW Environment Protection Authority (EPA) provided correspondence in relation to the Proposal advising that they understand the proposed metal recycling facility is designed to process up to 30,000 tonnes per annum of ferrous and non-ferrous scrap metal.

Under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act), scrap metal processing is classified as a 'scheduled activity' where the facility has the capacity to process more than 150 tonnes of scrap metal per day or more than 30,000 tonnes per year, provided the activity is not carried out wholly indoors.

The EPA has reviewed the application material and determined that the proposed Facility, with a maximum processing capacity of 30,000 tonnes per annum, does not exceed the threshold for a scheduled activity under the POEO Act. As such, the activity does not require an Environment Protection Licence (EPL). Accordingly, the EPA will not act as the Appropriate Regulatory Authority (ARA) for the premises, should the development be approved. The EPA confirmed that it does not offer any further comment on the development application.

5.2.2. Department of Regional NSW

The Department of Regional NSW did not provide a formal feedback during the exhibition of the SEAR 2038 for the Proposal.

Although consultation with the Department of Regional NSW was not a specific requirement of SEARs 2038, JEP Environment & Planning issued formal correspondence to the Department on 20 June 2025 during preparation of the EIS. The correspondence provided an overview of the Proposal and invited comment on matters within the Department's remit, including potential regional economic benefits, infrastructure considerations, and land use compatibility.

At the time of finalising this EIS, no written response had been received from the Department of Regional NSW.

5.2.3. Transport for NSW

Transport for NSW (TfNSW) was formally contacted on 20 June 2025 as part of the targeted agency consultation process for the Proposal. This engagement was undertaken to ensure the EIS appropriately addressed matters relating to regional and state road infrastructure, particularly given the Site's proximity to and access from the Hume Highway.

TfNSW provided a formal written response on 1 July 2025 which identified fundamental concerns regarding road safety associated with the proposed access arrangements. Specifically, TfNSW raised issues with the reliance on at-grade right turn movements at the intersection of the Hume Highway and Murrays Flat Road for heavy vehicle access. Key points raised in the response are summarised below:

- **Road Safety Risk:** TfNSW advised that right-turn movements at at-grade intersections on high-speed dual carriageways such as the Hume Highway pose unacceptable safety risks. The agency recommended that alternative access arrangements be considered in the first instance.
- **Strategic Planning Context:** Reference was made to *Goulburn Mulwaree Council's Employment Land Strategy* (2016), which previously identified access issues in this location and suggested the potential for an alternative connection to Murrays Flat Road via Gorman Road to the west.
- **Non-Compliant Intersection Design:** TfNSW noted that the current intersection does not comply with Austroads design standards (including Guide to Road Design Part 4A). Specific issues include:
 - Inadequate median width to accommodate simultaneous truck movements;
 - Absence of acceleration and deceleration lanes; and
 - General substandard geometry for heavy vehicle movements.
- **EIS Requirements:** In order to address these concerns, TfNSW has requested that the following be incorporated into the EIS:
 - A Traffic Impact Assessment (TIA) prepared in accordance with TfNSW's *Guide to Transport Impact Assessment*;
 - Strategic design plans for any proposed mitigation works on the Hume Highway; and
 - Consideration of alternative access routes or infrastructure upgrades to improve road safety.

TfNSW has indicated its willingness to meet to discuss these matters further and has provided contact details for follow-up discussions.

In response, a detailed Traffic and Parking Impact Assessment (TPIA) has been prepared to inform the EIS and assess access options, traffic volumes, and road design solutions. The assessment addresses the concerns raised by TfNSW and has proposed reasonable and feasible intersection upgrades to improve safe intersection sight distances (SISD), accommodate anticipated turning volumes, and provide a safe environment for both light and heavy vehicles accessing the Site. The TPIA is provided in Appendix 7 and summarised in Section 9 of the EIS.

5.2.4. Fire & Rescue NSW

JEP Environment & Planning contacted Fire and Rescue NSW (FRNSW) on 20 June 2025 to seek feedback on the Proposal. The intent of the consultation was to inform FRNSW of the details of the Proposal and invite any comments relevant to emergency response, Site access, and fire safety provisions for industrial facilities handling scrap metal.

FRNSW provided a formal written response via email on 25 June 2025, advising that the agency would not be providing specific comments on the project at this stage. The response clarified that FRNSW and the Department of Planning, Housing and Infrastructure (DPHI) have established procedures for reviewing and making recommendations on State Significant and Designated Development applications.

FRNSW confirmed its expectation that the proposed development will comply with:

- Fire and Rescue NSW's standard assessment and referral processes, including Fire Engineering Brief Questionnaire (FEBQ) and Fire Engineering Report (FER) protocols;
- The relevant provisions of the National Construction Code (NCC); and
- Applicable legislative instruments and codes relevant to industrial developments.

FRNSW further advised that it will liaise directly with the consent authority, in this case Goulburn Mulwaree Council and/or the Southern Regional Planning Panel, through established pathways as the development assessment process progresses.

Sydney Metal Traders acknowledges the procedural context outlined by FRNSW and confirms that the design and operation of the proposed facility will be developed to comply with all relevant fire safety requirements. A Fire Safety Study has been provided (see Appendix 12) assessing FRNSW requirements and is summarised in Section 14 of the EIS.

5.2.5. NSW Rural Fire Service

Although consultation with NSW Rural Fire Service (NSW RFS) was not a specific requirement of SEARs 2038, NSW RFS was contacted during preparation of the EIS to obtain agency input regarding bush fire considerations relevant to the Proposal.

NSW RFS provided a formal written response on 2 July 2025. The response advised that the SEARs for the proposed development should incorporate a Bush Fire Hazard Assessment prepared by a suitably qualified consultant, addressing the aims and objectives of Planning for Bush Fire Protection (PBP) 2019. At a minimum, RFS requested the assessment to include:

- Suitable access for fire fighting vehicles, including access around structures on the Site;
- Suitable Static Water Supply including access for fire fighting vehicles;
- Appropriate Asset Protection Zones (APZs) around buildings and any hazardous materials storage areas (diesel storage tank) and BALs for structures (including upgrades to the existing dwelling), where appropriate;
- Preparation of a Bush Fire Emergency Management and Evacuation Plan in accordance with Table 6.8d of PBP 2019 and be consistent with the NSW RFS document: *A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan*;
- Provision of a Fire Management Plan that at minimum includes:
 - Ongoing bush fire fuel management within the Site;

- Site infrastructure plan;
- Site access and internal road plan;
- APZs and their continued maintenance;
- Location of hazards (physical, chemical etc) that may impact on firefighting operations; and
- Any such additional matters as may be required by the NSW RFS District Office for the Southern Ranges.

Sydney Metal Traders acknowledges the requirements set out by NSW RFS and confirms that the EIS includes a comprehensive Bush Fire Hazard Assessment (BFHA) and associated emergency management plans (see Appendix 13), consistent with PBP 2019.

5.2.6. SafeWork NSW

Although consultation with SafeWork NSW was not a specific requirement of SEARs 2038, SafeWork NSW was contacted on 20 June 2025 as part of the agency engagement process undertaken during preparation of this EIS.

At the time of finalising this EIS, no formal feedback had been received. Sydney Metal Traders notes that SafeWork NSW may provide input through the standard regulatory pathway following development approval, particularly where work health and safety matters arise in relation to plant, hazardous substances, or worker safety during construction or operations. The proponent will continue to ensure compliance with all relevant work health and safety legislation and codes of practice administered by SafeWork NSW.

5.2.7. WaterNSW

JEP Environment & Planning contacted WaterNSW on 20 June 2025 to seek feedback on the Proposal. The intent of the consultation was to inform WaterNSW of the project and invite comments relevant to water quality, stormwater management, and catchment protection.

WaterNSW provided a formal written response via email on 10 July 2025. The response confirmed that the proposed development must demonstrate a Neutral or Beneficial Effect (NorBE) on water quality in accordance with Part 6.5 of the State Environmental Planning Policy (Biodiversity and Conservation) 2021 for all proposed operations .

WaterNSW advised that the Environmental Impact Statement (EIS) should reference and be consistent with relevant guidelines and current recommended practices (CRPs), including:

- Neutral or Beneficial Effect on Water Quality Assessment Guideline (WaterNSW, 2022);
- Using MUSIC in Sydney Drinking Water Catchment (WaterNSW, 2023); and
- Landcom's Managing Urban Stormwater: Soils and Construction ('Blue Book').

Sydney Metal Traders acknowledges the matters raised by WaterNSW and confirms that the EIS incorporates a detailed water management assessment and mitigation measures that demonstrates the Proposal compliance with NorBE principles. Stormwater, wastewater, and erosion/sediment controls have been assessed and designed in accordance with best practice guidelines and tailored to Site conditions. See Appendix 4 for the Wastewater Assessment and Appendix 8 for the Water Cycle Management Study.

5.2.8. Goulburn Mulwaree Council

JEP Environment & Planning contacted Goulburn Mulwaree Council on 20 June 2025 to seek feedback on the proposed development at 88 Murrays Flat Road, Towrang. The request included a project description, scoping report, fact sheet, and a copy of the Secretary's Environmental Assessment Requirements (SEAR 1819) for the proposal. The intent of the consultation was to inform Council of the project and invite comments relevant to land use planning, cumulative impacts, infrastructure requirements, and community engagement.

Council provided a formal written response via email on 27 June 2025. The response referenced the Planning Secretary's Environmental Assessment Requirements (SEAR 1819) dated 18 October 2023, noting that further consultation with the Planning Secretary would be required if the application is not lodged before 18 October 2025. Council requested that the Environmental Impact Statement (EIS) address:

- The justification for the Proposal and suitability of the Site;
- Cumulative impacts associated with the development;
- The impact on the local road network, including any necessary upgrades;
- Meaningful consultation with neighbouring property owners and the community, with outcomes documented in the EIS; and
- Clarification of the Estimated Development Cost in accordance with Planning Circular PS 24-002, as the cost now exceeds \$5 million, making the Proposal regionally significant and requiring determination by the Southern Regional Planning Panel.

Council further advised that if the proposed development involves a Planning Agreement, the applicant should refer to Council's Planning Agreement and Land Dedication Policy and liaise with Council's nominated contact for such matters. Council also indicated that a further pre-lodgement meeting may be required if a more detailed response is sought.

Sydney Metal Traders acknowledges the matters raised by Goulburn Mulwaree Council and confirms that the EIS will provide robust justification for the proposal, supported by detailed assessments of traffic, cumulative impacts, and Site suitability. Community and stakeholder engagement activities are ongoing and will be summarised within the EIS to demonstrate meaningful consultation with nearby landowners and the broader community.

5.3. Organisation Consultation

5.3.1. Goulburn Mulwaree Landcare Landscape

JEP Environment & Planning contacted Goulburn Mulwaree Landcare Landscape on 20 June 2025 as part of the stakeholder consultation for the proposed development. Correspondence was addressed to the organisation's coordinator and provided information regarding the proposal, including a cover letter, project fact sheet, and details for accessing the online scoping report. The communication also included an invitation to participate in a community webinar scheduled for 3 July 2025 and requested written feedback by 4 July 2025.

At the time of finalising this EIS, no formal response had been received from Goulburn Mulwaree Landcare.

5.3.2. Goulburn Chamber of Commerce

The Goulburn Chamber of Commerce was contacted on 20 June 2025 as part of the broader community and business stakeholder engagement for the proposed metal recycling facility. A letter was mailed to the Chamber's registered address, accompanied by a fact sheet and scoping report link. The correspondence provided an overview of the development and its potential economic contribution to the region, and invited feedback by 4 July 2025. It also included an invitation to attend an online consultation webinar scheduled for 3 July 2025.

As of the finalisation date of this EIS, no comments or submissions had been received from the Chamber. The Proposal seeks to contribute positively to local industry and employment in the Goulburn Mulwaree LGA, and the proponent remains committed to ongoing engagement with the Chamber throughout the assessment and delivery stages of the project.

5.3.3. Pejar Local Aboriginal Land Council

The Pejar Local Aboriginal Land Council (LALC) was contacted on 20 June 2025 as part of the stakeholder consultation undertaken for this EIS. The correspondence included a project overview, fact sheet, and copy of SEAR 1819, and invited feedback on any matters of cultural heritage or Aboriginal community interest associated with the proposed development.

At the time of finalising this EIS, no response had been received from the Pejar Local Aboriginal Land Council.

5.4. Neighbours Consulted

As part of the stakeholder engagement process for the Proposal, consultation letters were issued on 20 June 2025 to all landowners and occupiers within approximately 2km of the Site. The correspondence included a project overview, fact sheet, and a link to the online scoping report. Each letter also invited neighbours to provide feedback via phone, email, or by attending an online community webinar.

The webinar was scheduled for 6:00 PM on Thursday, 3 July 2025 and was open to all interested members of the community. Registration instructions were provided, with RSVP requested by 5:00 PM on Wednesday, 2 July 2025. While no residents registered for or attended the webinar, the session proceeded as scheduled and was recorded to ensure transparency and information accessibility. The recorded session was subsequently uploaded to the JEP Environment & Planning dedicated webpage to the Proposal, where it remains publicly accessible for interested stakeholders.

At the time of finalising this EIS, no formal submissions, enquiries, or comments had been received from neighbouring residents or property owners. Notwithstanding, the Proponent remains committed to open communication with the local community and is prepared to engage further with any stakeholders who wish to provide feedback during the exhibition or assessment period.

5.5. Consultation Findings

The findings of the Community and Stakeholder Engagement Program are provided in full within the CSCR (see Appendix 2). The report summarises the consultation approach, correspondence issued, and any responses received from government agencies, community groups, local businesses, and nearby residents.

Stakeholders were broadly categorised into the following groups:

- Government Agencies;
- Local community groups; and
- Surrounding landowners and residents.

Consultation activities included the distribution of letters and information packs, a scheduled community webinar, and the opportunity for feedback via phone, email, or written submission. The webinar proceeded on 3 July 2025 and was recorded for transparency despite no attendees. The recording was uploaded to the JEP Environment & Planning website and remains available to the public.

A summary of the feedback received during the consultation process and how it has been addressed is provided in Table 5.1 below. Where feedback was not received, the proponent has remained available for future consultation and is committed to ongoing engagement throughout the planning process.

Table 5.1. Summary of feedback received from the stakeholders and the response on how it will be addressed.

Stakeholder	Feedback type	No. of Feedback	Feedback received	Response to feedback
Residents and Neighbours	Written submissions	None	n/a	n/a
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Phone calls	None	n/a	n/a
Local Community Group	Written submissions	None	n/a	n/a
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Phone call	None	n/a	n/a
Government Agencies	Written submissions	6	Of the 6 government agencies that provided written responses, 2 advised they had no concerns with the proposed development	Refer to section 5.4
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Phone call	None	n/a	n/a

5.6. Response to Feedback

5.6.1. Consultation Outcomes

No issues or objections were raised by the neighbours or local community during the consultation period. Accordingly, no amendments to the Proposal have been required as a result of public feedback.

Feedback from agencies is addressed below.

5.6.2. Transport for NSW

Transport for NSW (TfNSW) raised concerns during consultation in their letter dated 1 July 2025 in response to consultation. These concerns regarded the safety and operational performance of the Hume Highway and Murrays Flat Road intersection, particularly in relation to right-turn movements, intersection geometry, sight distance, and the absence of compliant turning treatments within a high-speed highway environment. TfNSW also identified safety concerns associated with the existing crash history at the intersection.

In response, meetings were undertaken between TfNSW, the project traffic consultant and the Proponent to refine the intersection design and operational access arrangements. These matters have been addressed within the revised Traffic and Parking Impact Assessment prepared by the project traffic engineer (refer Appendix 7).

A number of design and operational measures have been incorporated into the Proposal, including:

- Restriction of all vehicles exiting the Site to left-turn movements only onto the Hume Highway;
- Restriction of articulated vehicles to northbound travel only, with no southbound movements permitted from the Site;
- Provision of alternative routing arrangements via the Hume Highway/Hume Street roundabout and Carrick Road for vehicles requiring southbound access toward Goulburn;
- Construction of upgraded channelised left-turn (CHL) and channelised right-turn (CHR) treatments at the Hume Highway intersection in accordance with Austroads requirements;

- Extension of turning lanes and installation of median islands, signage and line marking to improve intersection safety and prohibit unsafe turning movements;
- SIDRA modelling confirming that the upgraded intersection will continue to operate at acceptable Levels of Service under both existing and future traffic growth scenarios; and
- Preparation of operational traffic management measures, including driver induction procedures, approved heavy vehicle routes, and a Traffic Management Plan to ensure ongoing compliance with approved access arrangements.

Together, these measures address the concerns raised by TfNSW and ensure the Proposal can operate safely and efficiently within the surrounding road network.

5.6.3. Goulburn Mulwaree Council

Goulburn Mulwaree Council's Pre-lodgement Meeting letter (FWA/0042/2122, dated 24 February 2022) and subsequent correspondence have been considered in the preparation of this EIS. A consolidated response to pre-lodgement requirements is provided in Section 1.10. The Development Application will be lodged prior to the expiry of the SEARs on 13 November 2025. Specific matters requested by Council and addressed in the EIS include:

- Justification of the Proposal (see Section 24);
- Cumulative impacts (see Section 22);
- Consultation outcomes (see Section 5); and
- Clarification of the estimated development cost (see Section 21), prepared consistent with Planning Circular PS 24-002.

Traffic impacts and any required upgrades are addressed in the TPIA.

5.6.4. WaterNSW

WaterNSW requested that the development demonstrate a Neutral or Beneficial Effect (NorBE) on water quality in accordance with Part 6.5 of the State Environmental Planning Policy (Biodiversity and Conservation) 2021. The assessment has been undertaken with reference to the *NorBE Assessment Guideline* (WaterNSW, 2022), *Using MUSIC in Sydney Drinking Water Catchment* (WaterNSW, 2023), and *Managing Urban Stormwater: Soils and Construction (Blue Book)* (Landcom).

A Wastewater and Stormwater Management Report prepared by Sowdes is included in the EIS (see Appendices 4 and 8) confirming that the Proposal meets the NorBE requirements and relevant WaterNSW standards.

5.6.5. NSW Rural Fire Service

Although consultation with NSW Rural Fire Service (NSW RFS) was not a specific requirement of SEARs 2038, NSW RFS was contacted during preparation of the EIS to obtain agency input regarding bush fire management considerations relevant to the Proposal.

The NSW Rural Fire Service (NSW RFS) advised that the EIS should address access, static water supply, Asset Protection Zones (APZs) and emergency planning in accordance with *Planning for Bush Fire Protection 2019*. In response, the following have been incorporated into the design of the Proposal:

- Site layout providing suitable access for fire-fighting and service vehicles (including waste collection), supported by 18 on-site parking spaces (see Appendix 7);

- Provision of a static water supply for fire-fighting, as identified in the Wastewater Report (see Appendix 4) and the Fire Safety Study (Appendix 12);
- Establishment of appropriate APZs around buildings and storage areas (see Appendix 13); and

The preparation of supporting technical studies, including a Bushfire Assessment, Fire Safety Study (FSS), Preliminary Hazard Analysis (PHA), Fire Safety Study, Stormwater Quality Assessment and Wastewater Report demonstrate alignment with NSW RFS advice.

5.7. Conclusion

A comprehensive Community and Stakeholder Engagement Program was undertaken to support the preparation of this EIS for the Proposal. The engagement process was guided by the consultation requirements outlined in the previous SEARs 1819 and the current SEARs 2038 and targeted outreach to key stakeholders, including government agencies, local community groups, businesses, and neighbouring landowners.

Formal consultation letters were issued on 20 June 2025, supported by project fact sheets, scoping report documentation, and an invitation to attend an online community webinar. The consultation approach was structured to encourage participation and facilitate transparency, with all materials made publicly accessible through the dedicated webpage.

Of the stakeholders contacted, six government agencies provided written responses. Two of these agencies - Fire and Rescue NSW and the NSW Environment Protection Authority - confirmed they had no objections or additional comments. Transport for NSW raised specific concerns regarding road safety and access to the Hume Highway. These concerns were addressed through the preparation of a Traffic and Parking Impact Assessment (Appendix 7), which informed the design of appropriate access and intersection upgrades. No feedback was received from the other consulted agencies, community groups, or local residents.

The webinar scheduled for 3 July 2025 was held as planned and recorded, despite no attendees. The recording was subsequently uploaded to the project website to ensure continued access to information for interested stakeholders.

Overall, the engagement process demonstrated a proactive and transparent approach to stakeholder consultation. The matters raised through agency feedback have been addressed within this EIS, and the proponent remains committed to ongoing engagement throughout the assessment and approval process.

6. Noise and Vibration Impact Assessment

RWDI Australia Pty Ltd (RWDI) was engaged by Sydney Metal Traders to conduct a Noise and Vibration Impact Assessment (NVIA) for the Proposal.

6.1. Existing Condition

To quantify the existing acoustic environment, RWDI conducted unattended noise monitoring from Wednesday 11 December to Wednesday 18 December 2024. The monitoring was undertaken using calibrated sound level meters fitted with windshield microphones. Calibration of each device was verified both before and after deployment, with drift not exceeding ± 0.5 dBA. All monitoring equipment carried current NATA or manufacturer calibration certificates.

Noise monitors were positioned at two representative locations (See Figure 6.1):

- Location L01 – Located south of the Site at 93 Murrays Flat Road, Towrang, within the property boundary of 17658 Hume Highway and approximately 220 metres from the Hume Highway.
- Location L02 – Located within the subject Site at 88 Murrays Flat Road, Towrang, approximately 150 metres from Murrays Flat Road.

Noise levels recorded at Location L01 were primarily influenced by distant road traffic associated with the Hume Highway.

Figure 6.1. Noise Monitoring Location.



Attended noise monitoring was also undertaken on Thursday 19 December 2024 to identify key noise sources contributing to the existing environment. A 10-minute measurement was recorded at each location, with results summarised in Table 6.1.

Table 6.1: Attended Noise Monitoring Results (dBA)

Location	Time	L _{Aeq}	L _{A90}
L01	1:02pm - 1:12pm	44	40
L02	1:45pm - 1:55pm	53	45

The L_{A90} values were used to determine the Rating Background Level (RBL) in accordance with the NSW Noise Policy for Industry (NPfI). RBLs were calculated for the daytime, evening, night-time, and morning shoulder periods, with data affected by adverse meteorological conditions or extraneous noise excluded from the analysis. The RBLs for each location are presented in Table 6.2.

Table 6.2: Unattended Noise Monitoring Results – Rating Background Levels (dBA)

Location	Period	RBL
L01	Day	39
	Evening	43
	Night	35
	Morning Shoulder	38
L02	Day	32
	Evening	36
	Night	30
	Morning Shoulder	33

This data provides a baseline understanding of the existing noise conditions at the Site and informed subsequent assessment of potential noise impacts associated with the proposed facility operations.

6.2. Potential Impacts

6.2.1. Operational Noise Assessment

Operational noise associated with the proposed metal recycling facility has been modelled based on a conservative schedule of equipment, informed by RWDI's internal noise database and experience on comparable projects. Equipment includes a pre-shredder, hammermill shredder, oxy torch, shearing equipment, various vehicle movements, and downstream separation plant. Sound power levels were assigned for each noise source and modelled using CadnaA v2025 software, applying the CONCAWE algorithm. This included noise-enhancing meteorological conditions and conservative assumptions, such as the hammermill shredder being unshielded and located outdoors.

Point and line sources representing forklifts, rooftop mechanical units, and heavy vehicle movements were included based on indicative Site layout plans. The modelling included consideration of modifying factors (e.g. tonality, low-frequency noise), as outlined in Section C1 of the NPfI. At this stage, Site equipment is assumed to produce broadband, steady-state noise without tonal or intermittent features. This assumption should be revisited upon confirmation of final plant and equipment.

Predicted noise levels have been compared to Project Noise Trigger Levels (PNTLs) for each receiver and assessment period. The results are summarised for daytime predicted operational noise impacts are provided in Table 6.3. The results for morning shoulder predicted operational noise impacts are provided in Table 6.4.

Table 6.3. Daytime Predicted Operational Noise Impacts at Residential Receivers.

Receiver	Predicted L _{Aeq,15min} (dB)	PNTL (dB)	Exceedance
R02	46	40	+6 dB
R04	42		–
R05	32		–
R06	26		–
R07	27		–

Receiver	Predicted LAeq,15min (dB)	PNTL (dB)	Exceedance
R08	27	44	–
R09	26		–
R10	26		–
R11	<20		–
R12	26		–
R13	<20		–
R14	25		–
R15	24		–
R16	26		–
R17	26		–
R18	<20		–
R19	<20		–
R20	<20		–
R01 (Ind)	51	68	–
R03 (Ind)	49		–

Table 6.4: Morning Shoulder Predicted Operational Noise Impacts at Residential Receivers.

Receiver	Predicted LAeq,15min (dB)	PNTL (dB)	Exceedance
R02	41	38	+3 dB
R04	33	43	–
R05	27		–
R06	21		–
R07	23		–
R08	24		–
R09	22		–
R10	22		–
R11	<20		–
R12	21		–
R13	<20		–
R14	19		–
R15	16		–
R16	23		–
R17	22		–
R18	<20		–
R19	<20		–
R20	<20		–
R01 (Ind)	47	68	–
R03 (Ind)	44	68	–

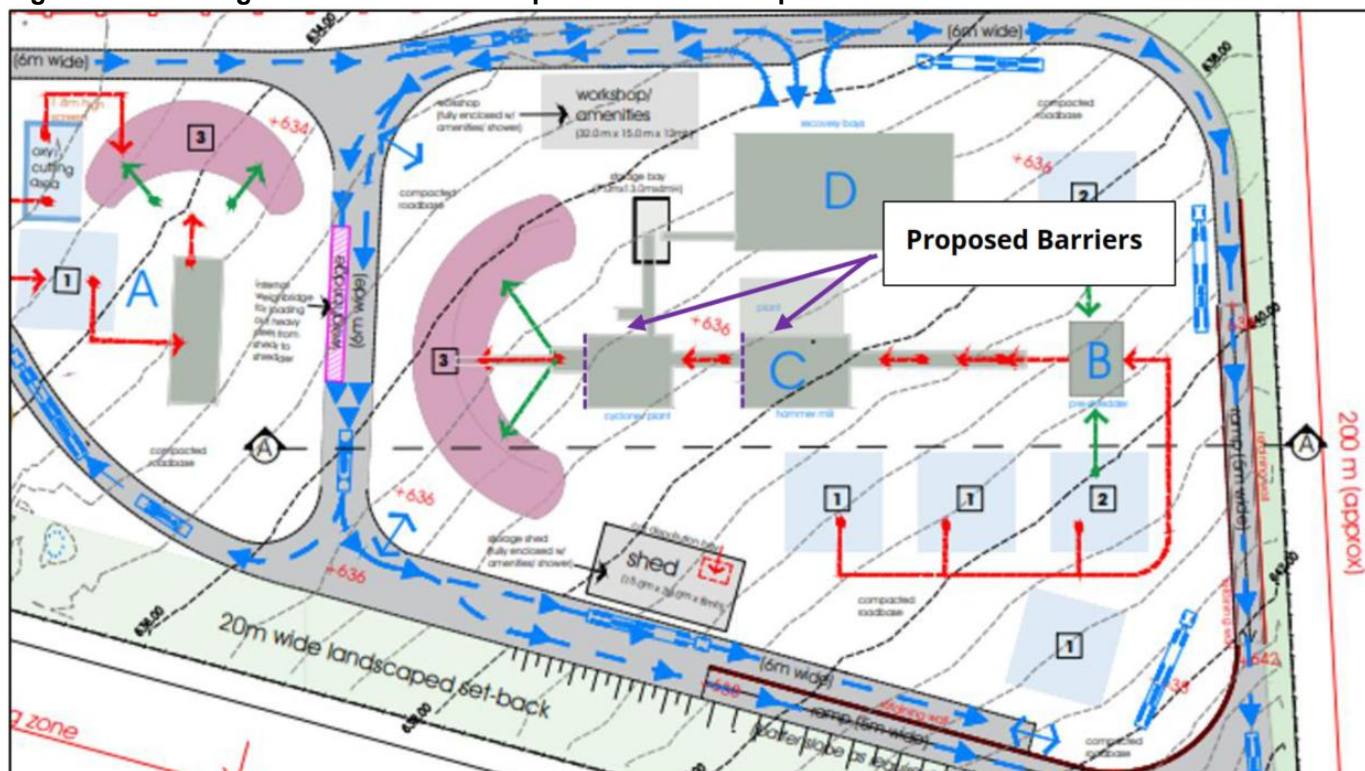
These results indicate that all residential and industrial receivers comply with the relevant PNTLs, with the exception of Receiver R02, where exceedances of 6 dB (daytime) and 3 dB (morning shoulder) are predicted. These are attributed primarily to the hammermill shredder and heavy vehicle movements. All other receivers are predicted to experience noise levels well below the applicable thresholds.

The most significant contributor to predicted noise levels at this receiver is the hammermill shredder, which is located approximately 600 m from this receiver, followed by the B-doubles. As a result of the exceedance predicted at receiver R02 a four (4) m high noise barrier on the northern boundary of both the cyclone plant and hammermill shredder has

been included in the design to reduce noise levels to achieve compliance with the PNTLs at the worst affected receiver R02.

The Noise and Vibration Impact Assessment predicts that operational noise levels at Receiver R02 would comply with the applicable Project Noise Trigger Levels following implementation of the recommended 4 m high noise barriers along the northern boundaries of the cyclone plant and hammermill shredder areas. The barriers are expected to mitigate the predicted daytime and morning shoulder exceedances, resulting in an acceptable operational noise outcome at the nearest affected residential receiver. (See Figure 6.2).

Figure 6.2. Morning Shoulder Predicted Operational Noise Impacts at Residential Receivers.



6.2.2. Construction Noise Assessment

A construction noise assessment was undertaken by RWDI to evaluate the potential noise impacts associated with site establishment and construction activities for the proposed development. A conservative approach was adopted using a typical worst-case construction scenario based on experience with comparable projects.

Construction noise emissions were modelled using the CONCAWE noise prediction algorithm within CadnaA v2025 software, consistent with the operational noise assessment methodology. The modelling incorporated conservative assumptions, including simultaneous operation of all major equipment, minimal shielding (limited to existing site features), and noise-enhancing meteorological conditions. It was further assumed that hand tools could be used at elevated positions, representing a worst-case acoustic outcome.

Indicative plant expected to be used during construction includes excavators, concrete trucks, mobile cranes, hand tools, and concrete saws. These assumptions were selected to reflect the realistic upper range of expected construction activity.

During standard construction hours, construction noise levels are predicted to comply with relevant NMLs at the majority of sensitive receivers. Exceedances of the NMLs of up to 5 dB are expected at receivers R02 (272 Murrays Flat Road) and R04 (17658 Hume Highway). RWDI note that these receivers are located approximately 500 metres and 350 metres from the construction areas, respectively. No noise sensitive receivers that are expected to be highly noise affected, i.e. with predicted noise levels exceeding 75 dBA.

RWDI emphasise that the predicted noise levels represent a realistic worst-case scenario, assuming all plant is operating concurrently and in proximity to sensitive receivers. In practice, construction noise levels are expected to vary throughout the program and will generally be lower during non-intensive periods when less equipment is in operation.

All reasonable and feasible measures will be applied to manage construction noise emissions from the Site. A detailed Construction Noise and Vibration Management Plan (CNVMP) will be prepared and include those recommended in the NVIA.

6.2.3. Traffic Noise Assessment

An assessment of potential road traffic noise impacts associated with the proposed development has been undertaken by RWDI in accordance with the NSW Road Noise Policy (RNP, 2011). The assessment considered noise generated by traffic movements along public roads associated with both the operational and construction phases of the proposed facility.

The road traffic noise criteria apply only to existing residential receivers adjacent to public roads impacted by increased traffic volumes. The relevant criteria under the RNP are 60 dB LAeq(1hr) during the daytime (7 am – 10 pm) and 55 dB LAeq(1hr) during the night-time (10 pm – 7 am), measured externally at the façade of residential buildings.

The primary road of interest is the Hume Highway, which is located in proximity to several representative residential receivers identified in the acoustic assessment. Traffic volume data sourced from Transport for NSW indicates that the Hume Highway currently experiences approximately 7,929 vehicles per day in both directions. The proposed development is expected to generate up to six semi-trailer movements and four heavy vehicle movements per day, with a maximum of two semi-trailers and one heavy vehicle movement expected during any peak hour.

The contribution of development-generated traffic to the existing baseline volumes on the Hume Highway is minimal and represents a negligible proportional increase. RWDI conducted a quantitative assessment of this increase and confirmed that the additional traffic would result in an increase in road traffic noise of less than 2 dB at nearby receivers.

According to the RNP, an increase of less than 2 dB is considered to be barely perceptible to the average person and unlikely to result in any adverse impact on residential amenity. Therefore, no significant increase in road traffic noise is anticipated as a result of the development's operation or construction-related traffic movements.

6.3. Vibration

The NVIA determined that no significant vibration-intensive activities are proposed. Given the offset distance to the nearest sensitive receivers, any minor vibration that may occur is expected to be imperceptible. As a result, potential vibration impact has not been considered in this report.

6.4. Mitigation Measures

The mitigation measures outlined in Table 6.5 will be implemented to ensure compliance with noise and vibration requirements and best practices during construction and operation phases of the Proposal.

Table 6.5. Mitigation measures for noise and vibration.

Mitigation Measure	Anticipated Noise Reduction (dBA)
Administrative Controls	
Operate during approved hours	N/A
Undertake regular noise monitoring to determine the impact of operating plant on sensitive receivers	N/A
Appropriate training of onsite staff	N/A
Undertake community consultation and respond to complaints in accordance with established project procedures	N/A

Mitigation Measure	Anticipated Noise Reduction (dBA)
Turning off machinery when not in use	0–5
Respite periods for pile drivers and rock breakers (if applicable)	N/A
Conducting regular maintenance of plant to ensure efficient and quiet operation	N/A
Engineering Controls	
Portable temporary screens	5–10
Screen or enclosure for stationary equipment	10–15
Maximising offset distance between noisy plant items and sensitive receivers	3–6
Avoiding use of noisy plant simultaneously and/or close together near sensitive receivers	2–3
Orienting equipment away from sensitive receivers	3–5
Carrying out loading and unloading away from sensitive receivers	3–5
Using noise source controls such as residential-class mufflers on all plant and equipment	5–10
Selecting Site access points and roads as far as reasonably practicable from sensitive receivers	3–6
Using non-noise-generating structures (e.g. Site offices, storage sheds, stockpiles) as noise barriers	5–10
Reversing alarms	2–5

6.5. Conclusion

An environmental noise and vibration assessment has been undertaken by RWDI to assess potential impacts associated with the construction and operation of the Proposal. The assessment has considered operational noise emissions, construction noise, construction vibration, and road traffic noise impacts, with predictions based on industry-standard modelling and conservative assumptions.

Operational noise emissions are predicted to comply with the relevant noise trigger levels at all assessed receivers with the implementation of the proposed four (4) m high noise barrier on the northern boundary of both the cyclone plant and hammermill shredder. Construction noise levels are expected to exceed the relevant Noise Management Levels only at Receivers R02 and R04 by up to 5 dB during standard hours; however, no receivers are expected to be highly noise-affected. Construction noise will be managed through a Construction Noise Management Plan. Construction-related vibration levels are predicted to be well below the applicable human comfort and structural damage criteria.

The contribution of project-related traffic to road noise is minimal, with a predicted increase of less than 0.5 dB along the Hume Highway an increment considered barely perceptible and unlikely to result in adverse impacts on nearby residential amenity.

The Proposal is not expected to result in significant noise or vibration impacts, provided that all reasonable and feasible mitigation measures as outlined Table 6.5 are implemented.

7. Wastewater Assessment

A wastewater assessment was undertaken by SOWDES to evaluate the capacity and suitability of the existing wastewater system on the Site, and to support the requirements of the proposed development. A full copy of the Wastewater Management Report at Appendix 4.

7.1. Existing Condition

The property contains a recently installed Aerated Wastewater Treatment System (AWTS) located north of the existing dwelling. This system is assumed to have replaced a non-compliant septic tank and absorption system, which was located too close to nearby drainage corridors. The AWTS was introduced to achieve compliant separation distances by relocating effluent dispersal further upslope and away from the main channel.

At the time of inspection, the AWTS unit had not been fully commissioned, with backfilling around the unit unfinished and the standard irrigation kit yet to be installed. However, the AWTS provides a suitable foundation for wastewater treatment subject to commissioning and connection works being completed in accordance with manufacturer specifications.

Surrounding drainage corridors do not present a constraint to wastewater management, with suitable areas identified over 60 m from the nearest watercourse banks for future irrigation. Soils in the proposed effluent disposal area consist of silty loam to 200 mm depth, transitioning to clay loam with weathered gravels from 500 mm. These conditions preclude passive disposal systems, confirming the appropriateness of the proposed AWTS-based solution.

A search of the Water NSW Groundwater Database identified two groundwater bores within 500 m of the Site, the closest being a Council-owned monitoring bore approximately 300 m away. No registered bores are located within 250 m of the proposed disposal area, and no groundwater drawdown analysis is required.

The development property is located within the 'Goulburn Fractured Rock Groundwater Source' as defined in the Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2011, which sets out prescribed activities and conditions for water supply works associated with a groundwater source – including bores.

The nearest of the bores is located approximately 300 metres to the northwest of the nominated effluent disposal area and is used as a monitoring bore for the Goulburn Mulwaree Council's sewage irrigation farm which is located on the opposite side of Murrays Flat Road.

The other identified groundwater bore is privately owned and located approximately 400 metres due north of the nominated effluent disposal area.

7.2. Impact Assessment

As there are no registered bores within 250 metres of the nominated effluent disposal area it is therefore considered that a draw-down analysis is not required and that groundwater sources will not be a constraint for the development.

The proposed wastewater management system will make use of the existing AWTS located approximately 15 m north of the existing dwelling. The system will be serviced and commissioned prior to use, and backfilling will be completed to match surrounding ground levels.

Sewage from the repurposed dwelling, main workshop, and gatehouse will be collected via low-pressure sewer pump stations and conveyed through buried polyethylene pipework to the AWTS. Secondary treated effluent will be distributed to two surface irrigation disposal areas (primary and secondary), each with a minimum application area of 300 m², located approximately 60 m upslope to the west of the AWTS. The system includes:

- A K Rain Series 4000 sequencing valve to alternate irrigation cycles;
- Four lateral irrigation lines per disposal area, each with two turf valve outlet points;
- Portable sprinkler sets attached via quick coupling turf valves for flexible irrigation;

- Manual rotation of sprinkler hoses to prevent ground saturation;
- Stormwater diversion mounds to prevent upslope runoff intrusion;
- Signage identifying reclaimed water use.

All electrical and pipe infrastructure will be installed below ground to avoid interference from vehicles and machinery. The old septic tank will be decommissioned in accordance with NSW Health guidelines. (See Figure 7.1).

A Wastewater Effluent Model using the Water NSW 'NorBE Assessment' portal produced a predictive plume representing the anticipated migration of effluent, nitrogen, phosphorus and faecal coliforms based on the combined measures of effluent treatment, disposal method and disposal area location.

The resulting plume is a prediction based on a combination of factors including the site's soil characteristics, the topography, daily effluent loading, and treatment methodologies.

The plume for all four constituent parameters remain inside the property boundary whilst also not effecting sensitive environmental receptors. Therefore the design is deemed to satisfy the 'Neutral or Beneficial Effect' (NorBE) criteria for wastewater management assessment purposes.

The model predicting the effluent plume for this development has been prepared with the summary results presented at the end of the Wastewater Management Report in Appendix 4 and Appendix 25 for the raw MUSIC modelling file.

7.3. Mitigation Measures

Table 7.1 represents mitigation measure for managing wastewater during operations of the Proposal.

Table 7.1. Mitigation measure for wastewater.

Item	Measures
1	Equal use of both primary and secondary irrigation areas year-round;
2	Regular monitoring and rotation of irrigation outlets;
3	Protection of all drainage and transfer lines from vehicle load and compaction;
4	Ongoing maintenance of the AWTS in accordance with accreditation requirements;
5	Clear surface-level identification of all buried services.
6	The AWTS unit will need to be serviced on a regular basis in line with the system manufacturer's accreditation guidelines and Council requirements.
7	The existing Aerated Wastewater Treatment System (AWTS) unit is to be serviced and commissioned by the manufacturer or their appointed technician to ensure that the unit is working as per the product's accreditation approval.
8	The existing septic tank which has been bypassed is to be formally decommissioned in accordance with the NSW Health Department publication titled <i>Advisory Note 3 - Destruction, Removal or Reuse of Septic Tanks, Collection Wells, Aerated Wastewater Treatment Systems (AWTS) and other Sewage Management Facilities (SMF)</i> .
9	The distribution of effluent between the primary and secondary disposal areas should be managed such that each area receives an equal amount of loading each year.
10	Each sprinkler hose should be rotated manually by pivoting the turf valve key and shifting the sprinkler outlet to a new location at least weekly during the warmer months and every two to three days during the cooler months.
11	Stormwater diversion mounds will be constructed on any upslope aspect of the wastewater management system.
12	Appropriate signage noting "RECLAIMED WATER – AVOID CONTACT" is to be installed around the nominated effluent disposal area.
13	The location of all drainage lines, electrical services and transfer pipes should be identified by placing marker posts in the ground.

All drainage pipework and electrical services associated with the wastewater management system will need to be installed deep enough below finished surface level and any internal driveways to protect them from mechanical and/or compaction damage.

7.4. Conclusion

The proposed wastewater management solution is fit for purpose, compliant with NSW Health and Council guidelines, and suitable for long-term operation at the site. The system leverages an existing AWTS to deliver safe, efficient, and environmentally responsible treatment and disposal of all effluent generated from the repurposed dwelling, workshop, and gatehouse amenities.

Effluent plume modelling confirmed that predicted discharges for all constituent parameters remain within Site boundaries and do not affect any sensitive environmental receptors. As such, the Proposal satisfies the Neutral or Beneficial Effect (NorBE) test for onsite wastewater systems.

Wastewater Management System Notes

- Existing AWT5 unit, to be fully commissioned prior to site.
- Existing septic to be completely decommissioned in accordance with NSW Health Department guidelines.
- Sewer drainage line from existing dwelling - approximate alignment.
- 120 PPH1: 5 poly pipe with blue coloured stripe to transfer the secondary treated effluent to the irrigation disposal area.
- 120 PPH2: 5 poly pipe to be installed within a steel conduit and be buried at least 600mm below the natural surface level to prevent possible damage by vehicle traffic.
- Isolation valves to facilitate distribution of the treated effluent between each irrigation disposal area.
- Primary irrigation disposal area with 4 zones of effluent irrigation with each zone to have two key operated turf valve outlets.
- Secondary irrigation disposal area with 4 zones of effluent irrigation with each zone to have two key operated turf valve outlets.
- 400 PPH3: 5 poly pipe with blue coloured stripe to transfer the sewage from the premises in the main workshop and the gatehouse to the AWT5 unit at the north of the existing dwelling - final alignment to be confirmed on site during the construction phase. It is also recommended that the potable water supply line from the water tanks to the north of the AWT5 unit to the amenities within the main workshop and the gatehouse be installed in the same trenches but 100mm above the sewer transfer line - nominal pipe size to be at least 400 PPH3.5 and marked with a blue stripe.
- Low pressure sewer pump station equal to the 'Aquatic Sewerage - 1.8/1000' unit to collect and transfer sewage waste from the main workshop and the gatehouse to the AWT5 unit.
- Sewer line from the amenities to the main workshop and the entrance gatehouse to the four pressure sewer pump station unit.

Project Details:

PROJECT TITLE	
METAL RECYCLING FACILITY DEVELOPMENT	
DRAWING TITLE	
WASTEWATER MANAGEMENT SITE PLAN	
FILE PARTICULARS	
LOT 3 DP55179	
DRAWING NUMBER	
88 MURRAY'S FLAT ROAD TOWANG, NSW 3586	
DRAWING DATE	
01/09/2015	
PROJECT NUMBER	
PJ000022	
DRAWING SCALE	
1:500	
SHEET NUMBER	
A	
DRAWING DESCRIPTION	
WWS	
CONSULTANT DETAILS	
NAME	DESCRIPTION
A	CONSULTANT DEVELOPMENT APPLICATION

Site Plan Details:

- EXISTING AWT5 UNIT**: Located at the north of the existing dwelling.
- EXISTING SEPTIC**: To be decommissioned.
- EXISTING DRAINAGE LINE**: Approximate alignment from dwelling to AWT5 unit.
- 120 PPH1 & 120 PPH2**: Poly pipes for effluent transfer.
- ISOLATION VALVES**: For distribution of treated effluent.
- IRIGATION DISPOSAL AREAS**: Primary and secondary areas with zones of effluent irrigation.
- 400 PPH3**: Poly pipe for sewage transfer from workshop and gatehouse.
- SEWER PUMP STATION**: Low pressure unit to collect and transfer sewage waste.
- SEWER LINE**: From amenities to main workshop and entrance gatehouse.

Project Details Table:

PROJECT TITLE	
METAL RECYCLING FACILITY DEVELOPMENT	
DRAWING TITLE	
WASTEWATER MANAGEMENT SITE PLAN	
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WWS	
CONSULTANT DETAILS	
NAME	DESCRIPTION
A	CONSULTANT DEVELOPMENT APPLICATION

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8. Visual Impact and Landscaping

Terras Landscape Architects was engaged to prepare a Visual Impact Assessment (VIA) in support of the Proposal. The proposed development includes sorting, shredding, and separation facilities, workshops and administrative buildings, weighbridges, and stormwater infrastructure. The VIA identifies visual catchments and assesses the likely visual impact of the proposed development based on established viewpoints using site photographs and photomontages. A copy of the full VIA is provided at Appendix 6.

8.1. Existing Condition

The Site is situated within a predominantly rural landscape comprising open pastures, light industrial uses, and transportation infrastructure. It is located approximately 700 metres east of the Hume Highway and Southern Railway Line. The surrounding topography is generally flat to gently undulating, with views extending toward distant forested hills. The immediate landscape context includes rural paddocks and native canopy vegetation, with some established industrial facilities located on the western side of Murrays Flat Road. These consist of warehouse-style sheds, water tanks, and heavy vehicles. Murrays Flat Road itself is sealed to the north of the Site (towards the railway), becoming unsealed to the south, and is subject to low traffic volumes.

The Site lies within an area zoned for industrial use. Existing vegetation along the boundaries partially screens views to and from the site. Due to the combination of existing vegetation, landform, and development, views into the Site are generally confined to a 500-metre radius. Photographic surveys and visual assessments were undertaken from a number of representative viewpoints (Viewpoints 1 to 9), including roads, adjacent properties, and elevated positions within the local area. A viewshed diagram was also prepared to identify the extent of potential visual exposure.

The most prominent views into the Site occur from sections of Murrays Flat Road and from selected positions along the Hume Highway, where openings in vegetation and landform permit partial or filtered views of the development area.

8.2. Impact Assessment

The VIA evaluated both the physical landscape and visual amenity. Potential impacts were assessed based on viewer sensitivity, viewing distance, magnitude of change, and existing landscape character. Each of the nine key viewpoints was assessed against these parameters. (see Figure 8.1).

- Viewpoint 1 (Hume Highway – eastbound) (See Figure 8.2): Moderate visual access and rural aesthetic. Low magnitude of change due to distance and intervening development. Assessed visual impact: Low;
- Viewpoint 2 (Intersection of Hume Hwy and Murrays Flat Rd): Moderate magnitude of change due to proximity and context with existing industrial uses. Supplementary screening vegetation will reduce visibility. Assessed visual impact: Low to Moderate;
- Viewpoint 3 (Entrance to The Broadway Estate): Low elevation profile of buildings and existing vegetation reduces visibility. The hammer mill will be mostly screened. Assessed visual impact: Low;
- Viewpoint 4 (Immediately west of Site) (See Figure 8.3): Close proximity with significant visual change. Visual impact mitigated by 20 m vegetated buffer. Assessed visual impact: High, reducing over time;
- Viewpoint 6 (Opposite 125 Murrays Flat Rd): Short viewing duration and low viewer numbers. Views filtered by structures and vegetation. Assessed visual impact: Low;
- Viewpoint 7 (Schoolhouse at 125 Murrays Flat Rd): Partial visibility of hammer mill through breaks in vegetation. Assessed visual impact: Low;
- Viewpoint 8 (17658 Hume Hwy): Filtered and distant views. Assessed visual impact: Low; and

- Viewpoint 9 (Hume Highway – westbound): Fast-moving vehicles, distant and partial views. Assessed visual impact: Low.

Overall, the visual impact of the proposed development is assessed as Low, except for Viewpoint 4 where a High near-field impact is identified due to proximity. This is expected to diminish as vegetation matures.

Figure 8.1. Viewpoint Data Sheet (source: Terras Landscape Architecture).

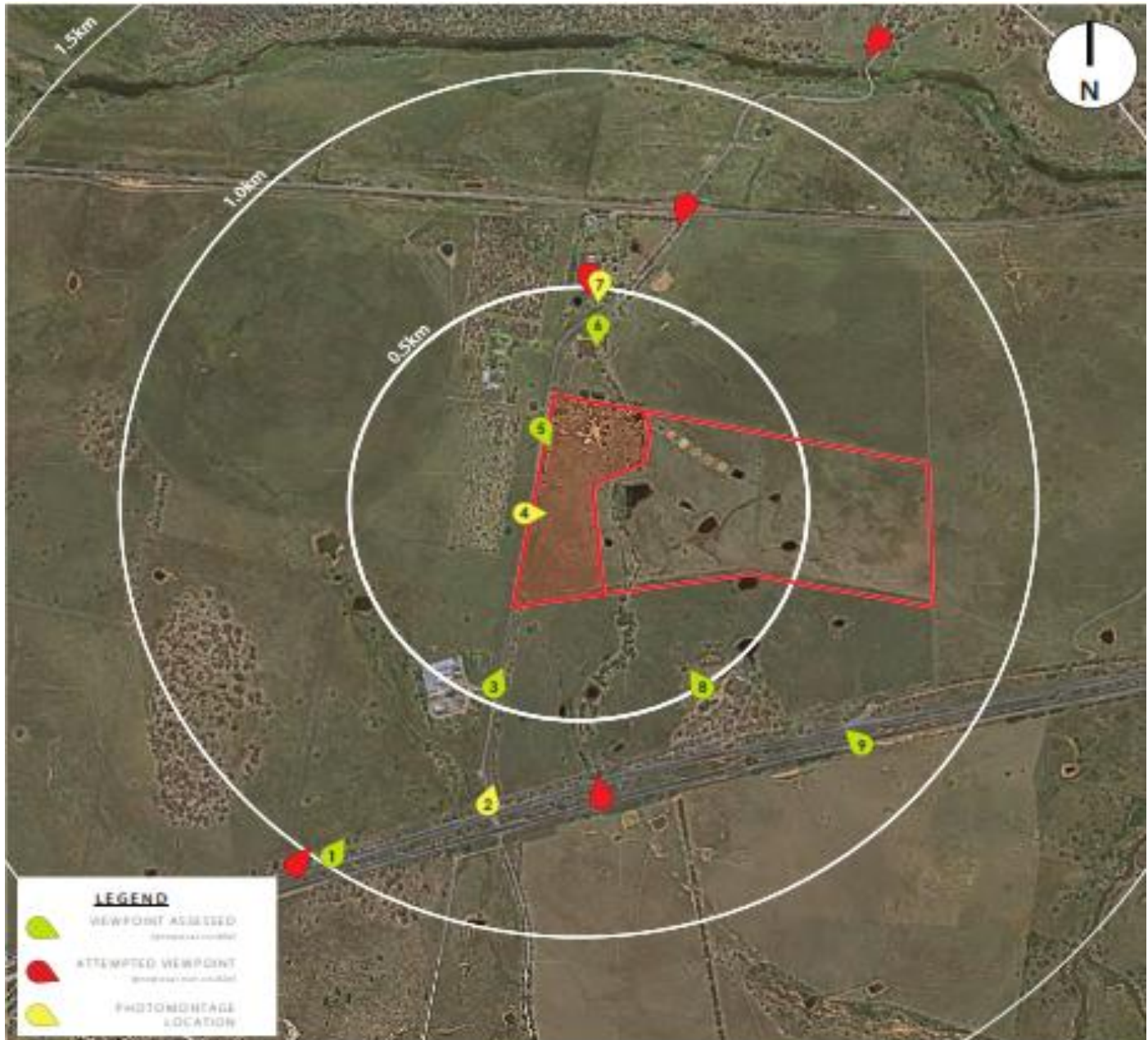


Figure 8.2. Viewpoint 1 – Massing Outline(source: Terras Landscape Architecture).



Image 14 Viewpoint 1, one frame, existing view



Image 15 Viewpoint 1, indicative massing outline of proposal showing approximate extents of built forms within this view.

—HAMMER MILL 21.3m ABOVE GROUND LEVEL
—EXISTING VEGETATION AND DEVELOPMENT
—PROVIDING PARTIAL SCREENING OF PROPOSED BUILT FORMS

Figure 8.3. Viewpoint 4 - photo montage (source: Terras Landscape Architecture).



Image 23 Viewpoint 4, one frame, existing view



Image 24 Viewpoint 4, indicative massing model of proposal showing approximate extents of built forms within this view with proposed vegetation at maturity.

8.2.1. Landscape Concept Plan

The Landscape Concept Plan has been designed to effectively mitigate visual impacts and support the visual amenity of the surrounding area. The plan incorporates a 20-metre-wide landscaped setback along key site boundaries, utilising a combination of native canopy trees, screening shrubs, grasses, and groundcovers.

This buffer will include native canopy trees, screening shrubs, and groundcovers selected from Plant Community Type (PCT) 1330 – Yellow Box – Blakely's Red Gum Grassy Woodland, which is characteristic of the South Eastern

Highlands Bioregion. These plantings are designed to visually integrate the facility into its surroundings and reduce the perceived scale of development from key viewpoints.

Additional landscaping treatments are proposed across functional areas of the Site. Detention and sediment basins will be vegetated with native grasses and groundcovers along their walls, with native shrubs established on the upper embankments. Tree planting within the basins is intentionally avoided to preserve the structural integrity of these stormwater features. Swales will be planted with native grasses and sedges, with couch turf used along the outer interface to blend into the surrounding pastureland. Along the southern boundary, large screening shrubs will be installed to filter views from nearby residential dwellings.

The proposed plant palette incorporates a diverse mix of locally endemic species suited to the climatic and ecological conditions of the area.

This landscaped buffer, together with retained existing vegetation, will soften views of built infrastructure and processing areas from nearby receivers, particularly along the southern and eastern boundaries.

The VIA concluded that existing and proposed vegetation would sufficiently filter and screen views, helping to reduce the development's prominence in the landscape. Overall, the landscape strategy aligns with best practice visual impact mitigation and contributes positively to the Site's integration within the rural landscape setting. (See Figure 2.2 for Landscape Concept Plan and Appendix 5 for a high resolution set of plans).

These plantings will be implemented and maintained in accordance with a detailed landscape management plan to ensure their long-term viability and environmental contribution.

The landscape plans can be seen in Figure 8.4 below. Complete hi-resolution landscape concept plans are provided in Appendix 5.

Figure 8.4. Proposed Concept Landscape Plan for 88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP251779). See Appendix 5 for the high resolution plan.



Date	Revision	Drawn By	Site description	JEP Environment & Planning	Client
13/07/2025	Revision A	D.Estephan	88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP251779)	Strategy Approvals Compliance Licensing A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	Sydney Metal Traders
					Project
					EIS
					Title
					Proposed Landscape Concept Plan
					Scale
					1:564
					Source
					JEP Environment & Planning

8.2.2. Lighting impact

Artificial lighting associated with the development will be limited to essential operational areas. Potential impacts to sensitive ecological or residential receptors are considered low. The Site is not located near any environmentally sensitive areas. Lighting will be designed in accordance with the *National Light Pollution Guidelines for Wildlife* (2020) and will incorporate measures to reduce spill and glare. These include the use of downward-facing lights, shielding, and operational timing controls.

8.3. Mitigation Measures

Mitigation measures have been identified to reduce visual impacts and maintain low visibility from key public and private viewpoints. These include both embedded design elements and recommended enhancement are presented in table 8.1.

Table 8.1. Mitigation measures for Visual Impact Assessment.

Item No.	Measures
Embedded Measures	
1	Provision of a 20-metre wide landscaped buffer along Murrays Flat Road.
2	Use of vegetation buffers and screening shrubs as detailed in landscape plans.
3	Low-profile buildings finished in recessive colours to blend with the rural backdrop.
4	Lighting controls to reduce glare and obtrusive effects and designed in accordance with the National Light Pollution Guidelines for Wildlife (2020)
Additional recommended measures	
5	Early implementation of landscape planting, particularly in the southern and eastern boundaries.
6	Selection of non-reflective cladding and building materials to minimise glint and glare.
7	Ongoing maintenance of landscape plantings to ensure establishment and density.
8	Monitoring of visual impacts post-construction, with adaptive measures as required.

8.4. Conclusion

The Proposal is located within land zoned for industrial use. The surrounding landscape context is primarily rural, with topographical and vegetative features limiting long-distance views. Visual impacts have been assessed from multiple viewpoints, with the majority rated as Low. A High impact is identified at the immediate western boundary (Viewpoint 4) but is expected to be substantially mitigated through the implementation of vegetative buffers and screening. Overall, the Proposal is considered visually compatible with the surrounding environment when the implementation of the proposed mitigation measures.

9. Traffic and Parking Impact Assessment

Hemanote Consultants was engaged to prepare a Traffic and Parking Impact Assessment (TPIA) for the Proposal. The TPIA assessment responds to the SEAR 2038 requirements and addresses feedback from Transport for NSW, which raised safety concerns relating to at-grade right-turn movements from the Hume Highway into Murrays Flat Road by heavy vehicles.

In response, the Proposal includes intersection upgrades, restriction of right-turns for vehicles over 9 metres, and access arrangements limited to left-in/left-out movements only.

The assessment concludes that with these upgrades, the development will have minimal impact on the surrounding road network and intersection performance. A full Traffic and Parking impact assessment report is provided in Appendix 7.

9.1. Existing Conditions

The Site is serviced by Murrays Flat Road, a local road running in a north–south alignment and intersecting with the Hume Highway, a classified state road, via a two-stage intersection. The road features a two-way undivided sealed carriageway, approximately 8 metres wide, with one traffic lane provided in each direction. There are no kerbside parking provisions.

The legal speed limit along this section of Murrays Flat Road is 50 km/h. At its junction with the Hume Highway, vehicles navigate a two-stage priority-controlled intersection regulated by ‘Give Way’ signage. Eastbound vehicles on the Hume Highway intersect Murrays Flat Road at the northern leg, while westbound vehicles do so at the southern leg. This staggered layout results in discrete intersection control points depending on direction of travel.

9.1.1. Existing Traffic conditions

To inform the assessment, a traffic survey was undertaken by R.O.A.R. Data Pty Ltd on 30 April 2025, covering the AM peak (6:00am–10:00am) and PM peak (2:00pm–6:00pm) periods at the intersection of Murrays Flat Road / Hume Highway / Private Road. The observed peak hour volumes occurred between 9:00am–10:00am (AM) and 2:45pm–3:45pm (PM) on a typical weekday. The survey was performed outside of the NSW school holiday period.

The traffic survey data indicates low volumes along Murrays Flat Road, with higher but still uncongested volumes on the Hume Highway. This is consistent with the semi-rural land use and low population density of the surrounding area. A summary of peak hour traffic volumes is provided in Table 9.1.

Table 9.1. Current peak traffic flows in the vicinity of the subject Site (on a typical weekday).

Traffic Movement	Morning Peak Hour (Vehicles per hour) (9:00am – 10:00am)	Evening Peak Hour (Vehicles per hour) (2:45pm – 3:45pm)
Murrays Flat Road (North of Hume Highway)		
Northbound	2	1
Southbound	3	3
Hume Highway (East of Murrays Flat Road)		
Eastbound	721	995
Westbound	887	988
Hume Highway (West of Murrays Flat Road)		
Eastbound	720	997
Westbound	889	992

Analysis against the *RMS Guide to Traffic Generating Developments* (2002) suggests that:

- Murrays Flat Road operates at Level of Service (LOS) A, consistent with peak hour flows below 200 vehicles/hour; and
- Hume Highway operates between LOS A and B, reflecting peak flows in the range of 900–1,400 vehicles/hour.

Further modelling using SIDRA (v9.1) was undertaken to assess the current operational performance of the two-stage intersection. Results show that the intersection performs well under current traffic conditions, with an overall LOS A across all legs. A marginal reduction to LOS B was identified for right-turn movements from Murrays Flat Road to the Hume Highway (eastbound) during the PM peak, with average delays remaining under 17 seconds, indicating minimal queuing and adequate reserve capacity.

9.1.2. Existing Public transport

The Site has access to regional public transport services. Goulburn Railway Station, located approximately 9.1 km from the Site, provides rail connectivity to major regional centres. Bus services are also available along nearby routes including Taralga Road, Tarlo Street, and Victoria Street, with services such as 778, 780, 818, 821A, 821B, and 855 operating in the area. While not directly adjacent to the site, these services offer general public transport options for employees or contractors if needed.

9.1.3. Existing Parking Controls

The Site is located in a mainly rural area, with no parking is available on Murrays Flat Road and Hume Highway.

9.2. Potential Impacts

9.2.1. Traffic Generation

Traffic generation associated with the proposed metal recycling facility has been assessed based on an estimated annual throughput of up to 30,000 tonnes of unprocessed scrap metal. This equates to a weekly intake of approximately 577 tonnes, which will be delivered to the Site primarily via semi-trailers and tipper trucks from the southern region.

Of the total unprocessed material received, approximately 75% will be exported as processed metal to the Port Kembla Metal Recyclers facility, with the remaining 25% classified as residual waste, transported by purpose-built vehicles to landfill locations to the north.

The Site is not proposed to accommodate public drop-off of scrap material. All vehicle movements are anticipated to be commercial in nature. Staff travel to and from the Site is expected to be evenly distributed between northern and southern origins.

Peak traffic generation was modelled for the AM and PM peak hours, with truck and staff vehicle movements distributed as shown in Table 9.2.

Table 9.2. Estimated Peak Hour Traffic Generation.

Peak Period	Trucks (in/out)	Staff Vehicles (in/out)
AM Inbound (9–10am)	25% of daily truck trips	90% of total staff arrivals
AM Outbound	25% of daily truck trips	10% of total staff departures
PM Inbound (2:45–3:45pm)	25% of daily truck trips	10% of total staff arrivals
PM Outbound	25% of daily truck trips	90% of total staff departures

Based on this distribution, the development is projected to generate approximately 26 vehicle movements in both the AM and PM peak periods comprising 19 inbound / 7 outbound in the morning and 7 inbound / 19 outbound in the evening.

This volume is considered low in the context of the surrounding rural road network and is not expected to significantly impact existing traffic conditions on Murrays Flat Road or the broader network. A full set of Traffic Design Plans are provided in Appendix C of the TPIA (see Appendix 7).

9.2.2. Haul Routes

Vehicle routes have been developed in accordance with the proposed intersection treatments outlined in Section 5 of this report. Due to the proposed left-out-only restriction from Murrays Flat Road onto the Hume Highway, vehicle

movements are controlled to ensure safe and compliant access to and from the Site. The following summarises the proposed haul routes. Also refer to the MRV or smaller truck haulage route map shown in Figure 9.1 below and Trucks larger than MRV haulage route map show in Figure 9.2.

Vehicle size MRV or smaller (<9m) arriving to the Site from:

From South Region (eastbound on Hume Highway):

- Travel along the Hume Highway and turn left onto Murrays Flat Road.
- Continue along Murrays Flat Road for approximately 860 metres and turn right into the subject site.

From North Region (westbound on Hume Highway):

- Travel along the Hume Highway and turn right onto Murrays Flat Road.
- Continue along Murrays Flat Road for approximately 860 metres and turn right into the subject site.

Articulated Vehicles arriving to the Site from:

From North Region (westbound on Hume Highway):

- Travel along the Hume Highway and pass the Murrays Flat Road intersection;
- Continue for approximately 12 km to the Hume Highway / Hume Street roundabout;
- Undertake a U-turn at the roundabout to travel eastbound on the Hume Highway;
- Travel approximately 12 km and turn left onto Murrays Flat Road via the upgraded CHL; and
- Continue along Murrays Flat Road for approximately 860 metres and turn right into the subject site.

Vehicle size MRV or smaller (<9m) departing the Site:

Towards North Region (Sydney):

- Travel along Murrays Flat Road for approximately 860 metres and turn left onto the Hume Highway.
- Continue northbound towards Sydney.

Towards South Region (Goulburn):

- Travel along Murrays Flat Road for approximately 860 metres and turn left onto the Hume Highway.
- Continue for approximately 4.28 kilometres and turn left onto Carrick Road.
- Travel approximately 212 metres and undertake a left turn onto the road reserve area before turning right back onto Carrick Road.
- Travel approximately 257 metres and turn right onto the Hume Highway.
- Continue southbound towards Goulburn.

Articulated Vehicles departing the Site towards North Region (Sydney):

- Travel along Murrays Flat Road for approximately 860 metres and turn left onto the Hume Highway; and
- Continue northbound towards Sydney.

Figure 9.1. Truck Haulage Route Map for MRV trucks or smaller (source: Hemanote Consultants).

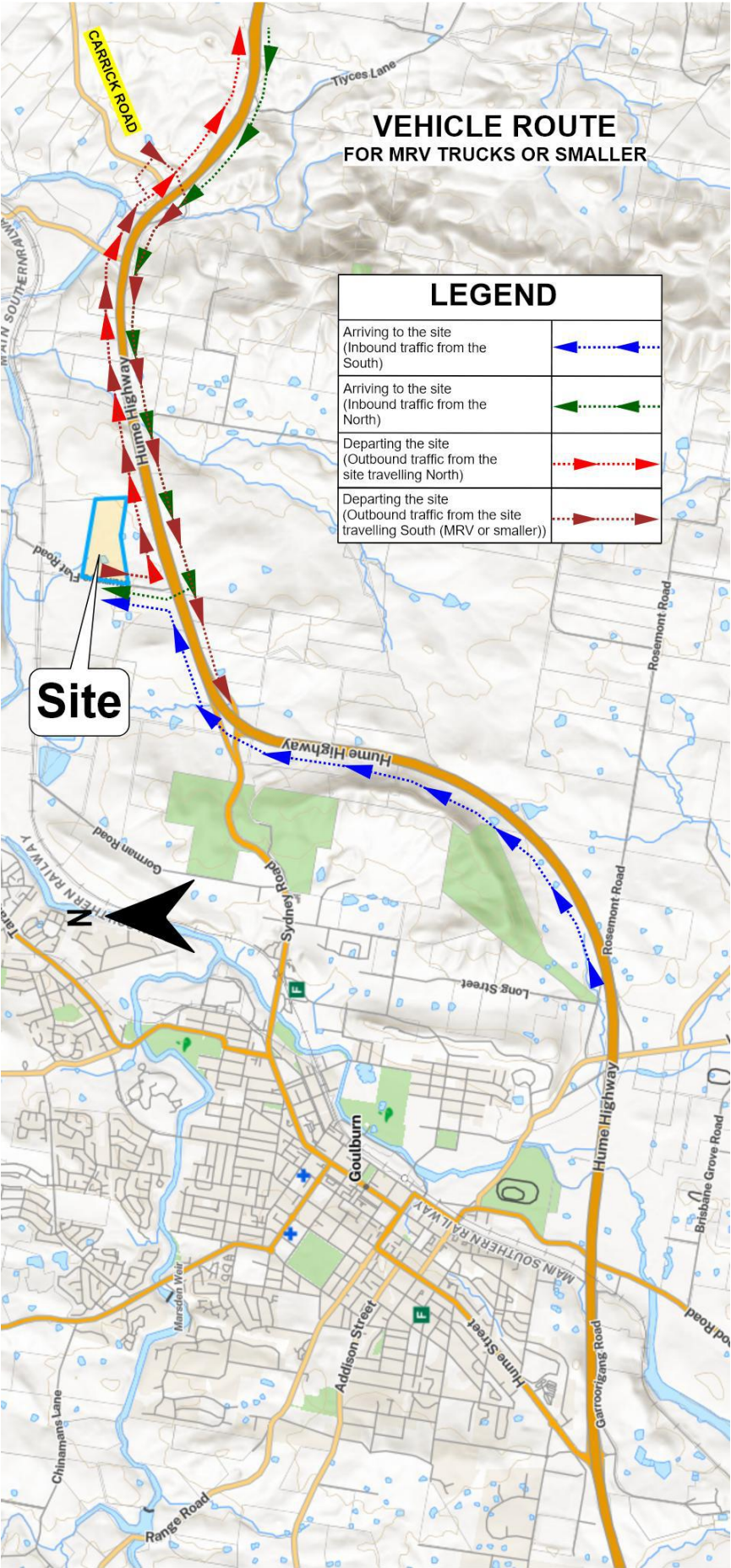
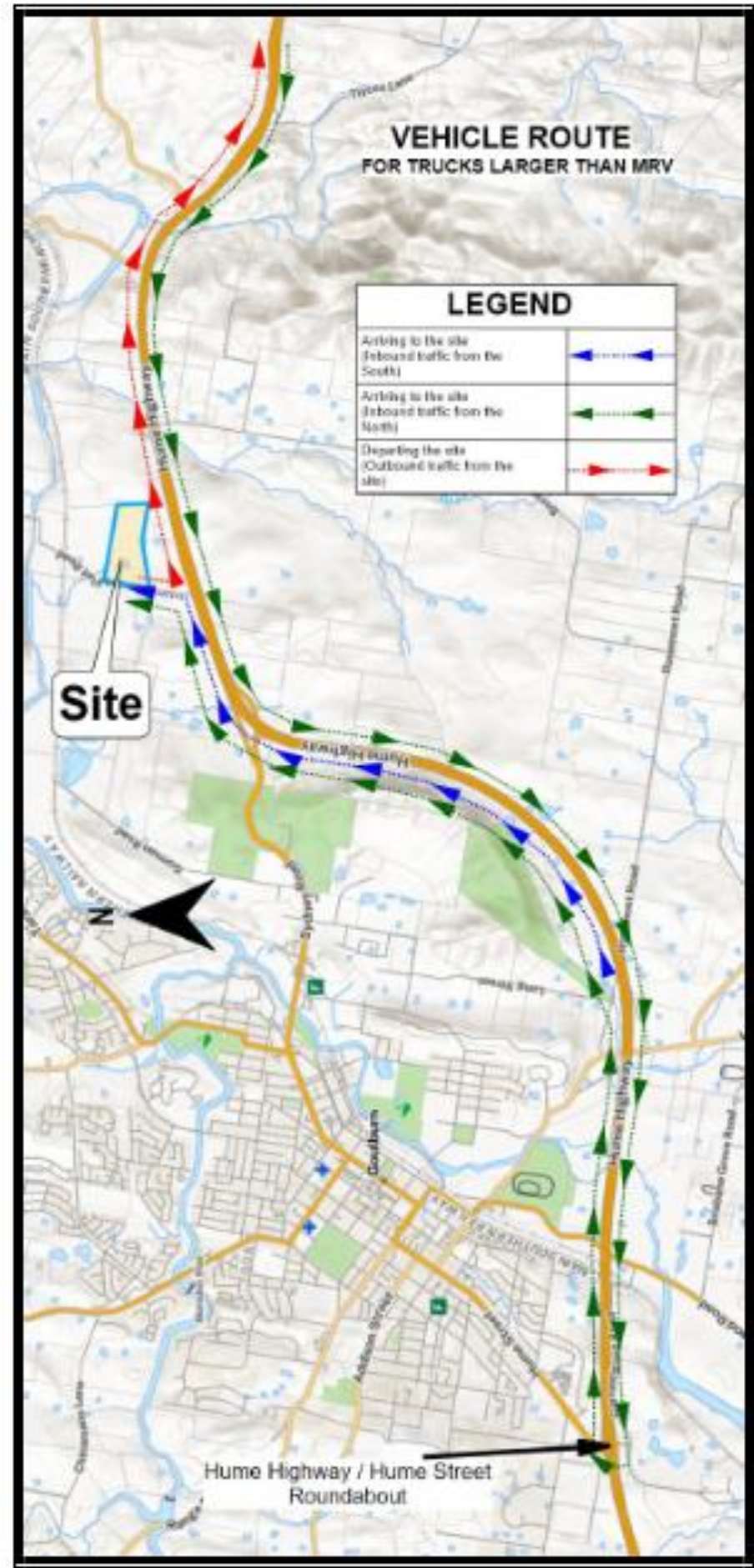


Figure 9.2. Truck Haulage Route Map for trucks larger than MRV (source: Hemanote Consultants).



9.2.3. Proposed Intersection Upgrades

The Traffic and Parking Impact Assessment prepared by Hemanote Consultants identified that the existing two-stage intersection of Murrays Flat Road and the Hume Highway does not comply with current Austroads standards and requires upgrading to improve safety and operational performance. Accordingly, a series of intersection improvements are proposed to facilitate safe access to and from the Site.

The proposed works include the construction of a channelised left-turn lane (CHL) at the northern intersection for eastbound traffic entering Murrays Flat Road and the extension of the existing channelised right-turn lane (CHR) at the southern intersection for westbound traffic turning into Murrays Flat Road. Additional works include installation of median islands, associated line marking and signage, and measures to prohibit right-turn movements from Murrays Flat Road onto the Hume Highway. These upgrades are intended to improve intersection safety, increase sight distance, and reduce the potential for vehicle conflicts at the intersection.

The proposed intersection treatment has been designed in accordance with relevant Austroads guidelines and forms part of the overall traffic management strategy for the Proposal. In summary the intersection treatment involves the following design elements:

- Extending the existing channelised right-turn lane on the Hume Highway (westbound) into Murrays Flat Road to 185 metres, in compliance with Austroads standards.
- Installation of a median island to guide traffic and prevent right-turn movements from Murrays Flat Road (towards the west).
- Extending the existing channelised right-turn lane on the Hume Highway (westbound) into Murrays Flat Road to 185 metres, in compliance with Austroads standards.
- Installation of a median island to guide traffic and prevent right-turn movements from Murrays Flat Road (towards the west).

High resolution figures of the design are provided in the Appendix 7 (see Appendix C – Traffic Design Plans of the TPIA).

9.2.4. Projected Intersection Performance

Post-development intersection performance was modelled using SIDRA (Version 9.1), considering both base year conditions (2025) and a 10-year future growth scenario (2035). The following key assumptions were applied in the modelling:

- The estimated morning and afternoon peak traffic generation has been adopted;
- Staff traffic generation assumes 90% (13 vehicles) arriving in the AM peak and 90% (13 vehicles) departing in the PM peak, with the remaining 10% (2 vehicles) in the opposite direction;
- The sum of traffic generated from trucks for both AM and PM peak periods represents 50% of the total daily truck generation volume;
- All skippers and semi-trailer vehicles will be approaching from the north and will follow the approved vehicle routing;
- Vehicles intending to travel towards Goulburn are required to turn left onto the Hume Highway and utilise an alternative intersection (via Carrick Road) to undertake a turning manoeuvre;
- Left-in / left-out access arrangements are applied at the Murrays Flat Road / Hume Highway intersection;
- Right-turn movements from Murrays Flat Road onto the Hume Highway are prohibited for all vehicles, in accordance with the proposed intersection design;
- Right-turn movements from the Hume Highway (westbound) into Murrays Flat Road are retained;
- Pre-development network analysis is modelled for the base year (2025) and 10 years of future growth (2035), applying a uniform annual growth rate of 2%;
- Post-development network analysis considers both the proposed development traffic and future background traffic growth; and

Future post-development traffic volumes are based on background growth on Hume Highway and Murrays Flat Road plus the proposed development traffic generation. The SIDRA modelling indicates that the proposed development will have only a minor impact on the operational performance of nearby intersections, both under current and future traffic conditions.

Base Year Findings:

- The Hume Highway / Murrays Flat Road intersection will continue to operate at Level of Service (LOS) 'A' overall;
- A minor reduction in performance occurs for the right-turn movement from Murrays Flat Road (south approach at the northern intersection), operating at LOS 'B' during the PM peak;

The associated delay remains low (less than approximately 17 seconds per vehicle), which is within acceptable limits. Future Year Findings:

- Without development:
 - The southern intersection will maintain LOS 'A' in both AM and PM peaks;
 - The northern intersection's north and south approaches may drop slightly from LOS 'A' to 'B' in the PM peak, but the west approach remains at LOS 'A'; and
 - AM peak conditions remain unchanged.
- With the development and proposed intersection upgrade:
 - The intersection is expected to continue to operate efficiently, with acceptable Levels of Service;
 - The proposed intersection upgrades (including CHL and CHR treatments and turning restrictions) will maintain safe and effective operation of the intersection;

The upgrades remove unsafe turning movements and support improved traffic performance under future conditions. The additional traffic from the development can be accommodated within the existing road network. The project will have a low impact on traffic flows, maintaining acceptable Levels of Service and no significant performance degradation in both the base year and the 10-year future scenario.

9.2.5. Access Management to the Site

As part of the mitigation strategy, access to and from the development Site has been designed to minimise conflict between vehicle types and to reduce congestion at the Site frontage:

- Dedicated access arrangements have been incorporated for heavy vehicles, including a 22 m wide entry/exit driveway (north) and a 20 m wide exit-only driveway (south), designed in accordance with AS2890.2:2018;
- Driveway locations and sight lines have been assessed for compliance with AS2890.1:2004 and AS2890.2:2018, including provision of appropriate sight distance and separation from intersections;
- Left-in / left-out access arrangements are implemented at the Murrays Flat Road / Hume Highway intersection;
- Right-turn movements from Murrays Flat Road onto the Hume Highway are prohibited for all vehicles; and
- Right-turn movements from the Hume Highway (westbound) into Murrays Flat Road are retained, ensuring safe and compliant access to the Site.

9.2.6. Swept Paths, Circulation and Parking

The parking demand and loading/unloading facilities resulting from the Proposal can be accommodated within the Site. The Proposal will not have adverse impacts on parking in the surrounding area.

The Goulburn Mulwaree Development Control Plan (2009) does not specify parking rates for scrap metal recycling plants. A reasonable provision has been adopted:

- One (1) space per employee (15 spaces); and

- Three (3) additional spaces for visitors (for maintenance and deliveries).

The proposed off-street car parking area provides a total of eighteen (18) on-site car parking spaces, including thirteen (13) spaces adjacent to the administration office for staff and five (5) spaces in front of the administration office for staff and visitors, including one (1) accessible space with an adjacent shared area.

All parking has been designed in accordance with AS2890.1:2004, AS2890.2:2018 and AS2890.6:2009.

The on-site car parking and manoeuvring layout has been designed to provide safe and efficient vehicular access. Vehicles are able to enter and exit the Site in a forward direction, supported by adequate internal aisle widths and turning areas. Operational trucks and light vehicles (staff and visitors) are provided with separate driveways, ensuring segregation between heavy vehicle movements and staff/visitor access to the Site and administration office.

The largest vehicle expected to access the Site is an Articulated Vehicle (AV) of up to 20 metres in length.

The layout of truck manoeuvring arrangements has been designed to ensure safe and efficient movements within the scrap metal yard, with single-direction internal circulation from the northern access driveway. Internal circulation is supported by line marking and signage to guide truck movements and minimise conflict points.

All vehicular manoeuvring within the Site has been designed and assessed using AV, HRV, MRV, SRV, B99 and B85 swept paths, in accordance with AS2890.1:2004 and AS2890.2:2018.

Refer to the vehicle swept paths diagrams provided in Appendix B of the TPIA (see Appendix 7).

9.2.7. Construction Traffic Management

A Construction Traffic Management Plan (CTMP) has been prepared by Hemanote Consultants to outline the measures to be implemented by construction personnel and vehicles to ensure pedestrian safety and the effective management of traffic during construction works for the Proposal. The CTMP is provided as a separate supporting document at the end of the TPIA (see Appendix 7).

The total construction period is estimated to be approximately six (6) months, subject to confirmation by the appointed builder or contractor.

The largest vehicles expected to access the Site during construction include a truck and trailer (19.5 metres in length) and an articulated vehicle (20 metres in length).

Certified traffic controllers will be deployed as required, particularly during driveway construction and when managing construction vehicle movements entering and exiting the Site.

The proposed hours of construction work are:

- 7:00 am to 6:00 pm, Monday to Friday;
- 8:00 am to 1:00 pm, Saturdays; and
- No work on Sundays or Public Holidays.

The calculation of maximum daily truck movements during the grading and earthworks stage is based on the net export soil volumes detailed in the Cut and Fill Site Plan.

Approximately 34,000 m³ of spoil material (equivalent to approximately 20,000 tonnes) will be removed from the Site. Based on a truck and trailer capacity of approximately 33 tonnes per load, this equates to approximately 610 total loads. Over a 12-week period, this results in an average of approximately 9 export truckloads per day and 2 import loads per day, equating to approximately 22 truck movements per day (inbound and outbound combined).

Emergency vehicle access along surrounding roads will be maintained at all times, with priority given to emergency vehicles in accordance with standard procedures. All emergency services, including NSW Police, NSW Ambulance, Fire and Rescue NSW, and relevant transport authorities, will be notified prior to the commencement of construction works.

9.3. Mitigation Measures

To support the proposed development and ensure safe and efficient integration with the surrounding road network, a suite of intersection and access upgrades are proposed. These mitigation measures have been designed in accordance with undertaken in accordance with Austroads *Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management*. Table 9.3 summarises proposed mitigation measures.

A full set of Traffic Design Plans are provided in Appendix C of the TPIA (see Appendix 7).

Figure 9.3. Traffic Impact Assessment and Construction Traffic Management Plan Measures.

Item No.	Mitigation Measures
TIA	CHL Lane: To be constructed at the northern intersection (for eastbound traffic).
TIA	CHR Lane: To be constructed at the southern intersection (for westbound traffic).
TMP	A Traffic Management Plan (TMP) must be prepared and implemented prior to commencement of operations.
TMP	A 'Drivers Code of Conduct' will be undertaken for all staff, truck drivers, directly employed and all contract or customer truck drivers. A condition of employment / accessing the facility will be that the code of conduct is to be signed and a refresher training done once a year to ensure compliance with access to and from the facility.
TIA	Right-turn movements from Murrays Flat Road onto the Hume Highway will be prohibited for all vehicles, along with U-turn movements for eastbound vehicles.
TIA	Right-turn movements from the Hume Highway (westbound) into Murrays Flat Road will be retained, supported by a compliant deceleration lane.
TIA	Articulated vehicles will not turn right from the Hume Highway into Murrays Flat Road and will instead utilise the Hume Highway / Hume Street roundabout to undertake a U-turn and approach from the eastbound direction.
TIA	Extending the existing channelised right-turn lane from the Hume Highway (westbound) into Murrays Flat Road to 185 metres, in accordance with Austroads standards.
TIA	Extending and upgrading the existing auxiliary left-turn lane from the Hume Highway (eastbound) into a channelised left-turn lane (CHL) of 185 metres, including chevron line marking for guidance.
TIA	Installation of a median island to guide traffic and prevent right-turn movements from Murrays Flat Road (towards the west).
TIA	Construction of a 1.0-metre-wide median island on Murrays Flat Road, offset by 1.0 metre from the Hume Highway, to separate inbound and outbound traffic and provide safe clearance.
TIA	Installation of regulatory signage and line marking to prohibit right-turn movements from Murrays Flat Road and guide vehicle movements.
TIA	Dedicated entry and exit driveways have been incorporated for heavy vehicles, with appropriate widths (22 m and 20 m respectively) and turning radii.
CTMP	The developer/builder should always liaise and notify the adjoining properties regarding the proposed construction works.
CTMP	A notice with on-site contact details must be installed on the temporary site fence at all times.
CTMP	All staff, workers and contractors at the subject construction site are to be provided with a copy of this Construction Traffic Management Plan (CTMP) and are to be briefed.
CTMP	A temporary security fence/gates to Work Cover Authority requirements is to be provided to the property during the course of construction, and the worksite must be safely fenced off and ensured that the Site is secured against unauthorised entry or when the Site is not attended.
CTMP	No unauthorised pedestrians are to be given access to enter the Site. Travel within the Site is to be confined to designated walkways/areas identified by safety signs and/or temporary fencing. All personnel on-site are to wear safety equipment, including high-visibility vests.
CTMP	It should be noted that the locations of site amenities, staff parking, loading and unloading area(s), waste removal and storage areas may slightly change from time to time to suit the changing conditions of the Site for safety and to suit the work methodology.
CTMP	Appropriate sediment control measures are to be installed prior to the commencement of any construction works, and waste bins are to be placed within the Site for the storage of demolished/waste material to ensure safe disposal or recycling and minimise impacts on the environment.

Item No.	Mitigation Measures
CTMP	The access to the Site is accessible via Murrays Flat Road, and it will be utilised by construction vehicles as an access point to regulate vehicular movements into and out of the Site.
CTMP	It should be noted that construction vehicles are not allowed to reverse into the Site from the road unless a Road Occupancy Permit is obtained from the Council.
CTMP	The wheels of construction vehicles are to be cleaned and hosed by construction personnel before leaving the Site to ensure that soil and other materials are not transported or tracked onto the footpath or the roadway.
CTMP	Construction vehicles are to travel on the recommended truck routes and main roads using Remembrance Driveway (Hume Highway). Construction vehicles are to obey road rules, parking restrictions and clearway restrictions at all times.
CTMP	A copy of the proposed construction vehicle route is to be provided to all construction personnel and contractors working on the building site. The developer/builder is to run site inductions on a regular basis during the construction period to inform all staff members and workers of the construction management requirements.
CTMP	All material deliveries are to be unloaded on-site. The site manager/leading foreman is to ensure that two deliveries do not occur at the same time unless they can be both accommodated on-site.
CTMP	Construction vehicles will be required to park entirely within the construction site boundaries. Parking areas will be located inside the Site nearing the proposed temporary office to minimise amenity impacts on adjoining properties.
CTMP	All construction vehicles are to ensure that their engines are turned off, where possible, to minimise any noise impacts on adjoining residences and businesses and should not queue or layover on Murrays Flat Road without the Council's approval.
CTMP	A crane will be required for the proposed construction activities and is to be placed wholly within the Site. However, should a crane be required to be placed outside the confines of the subject site, approval must be obtained from the Council prior to this taking place.
CTMP	Loading and unloading are to take place wholly within the Site. All construction vehicles arriving to and leaving the Site shall have their material loads sealed or covered. The loading of disposable material into these vehicles, leaving the Site, is to occur only within the Site.
CTMP	Certified traffic controllers are to be stationed at the front of the subject site during driveway construction, when required, to manage construction traffic. No traffic controllers should stop general traffic to allow construction vehicles to enter or exit the subject site without the Council's approval.
CTMP	Certified traffic controllers are to be stationed at the site frontage during the driveway construction, to manage construction vehicles safely and the worksite must be safely fenced off to ensure that the Site is secured against unauthorised entry or when the Site is not attended.
CTMP	Cyclist access along Murrays Flat Road and surrounding streets must be maintained throughout the project at all times.
CTMP	Construction vehicles are to wait for a suitable gap in vehicular traffic, and certified traffic controllers are to manage construction vehicles before exiting the site, to minimise the impact on traffic flow, and no construction vehicles should obstruct any pedestrian movements.
CTMP	The existing public transport facilities will be maintained throughout the project. Emergency vehicle access along the surrounding streets will be maintained throughout the project. Priority is given to emergency vehicles as per normal procedures.
CTMP	All nearby properties will be notified and updated by the builder/contractor on a regular basis at key construction stages with respect to the construction process, particularly in relation to construction vehicle movements, and to be provided with the contact details of the site manager/leading foreman.

9.4. Conclusion

The TPIA prepared by Hemanote Consultants assesses the likely transport impacts of the Proposal. The assessment was informed by site-specific traffic counts, SIDRA modelling, and consideration of existing road conditions and intersection performance, consistent with the SEAR 2038.

The Proposal will provide adequate on-site parking and loading/unloading facilities and does not rely on public parking or public access for its operation and incorporates a range of mitigation measures, including upgrades to the Murrays Flat Road / Hume Highway intersection and site access arrangements. These measures are designed to

remove unsafe turning movements, restrict right-turn movements from Murrays Flat Road onto the Hume Highway, and improve overall intersection safety and performance.

The proposed development is expected to generate modest levels of traffic during peak periods, with approximately 26 vehicle movements forecast in both the AM and PM peaks. These volumes are considered low and are well within the capacity of the surrounding road network.

SIDRA modelling indicates that the Murrays Flat Road / Hume Highway intersection will continue to operate at acceptable Levels of Service post-development, with only minor impacts to certain movements.

Overall, the traffic and parking impacts of the proposed development are considered acceptable and can be appropriately managed through the implementation of the proposed access arrangements and intersection upgrade works.

10. Soil and Water Impact Assessment

SOWDES has been engaged to prepare a Water Cycle Management Study (WCMS) in support of the Proposal. The objective of the WCMS is to assess the potential impacts of the development on stormwater quality and hydrology, and to identify appropriate treatment measures to ensure compliance with relevant statutory and policy requirements. As part of this assessment, software modelling using the '*Model for Urban Stormwater Improvement Conceptualisation*' (MUSIC) was undertaken to identify pollutant sources, evaluate treatment strategies, and design drainage infrastructure to manage runoff generated during the operational phase of the facility.

The WCMS has been prepared with specific regard to the *Goulburn Mulwaree Development Control Plan 2009*, the WaterNSW publication *Developments in the Drinking Water Catchment – Water Quality Information Requirements* (February 2023), and the *Neutral or Beneficial Effect on Water Quality Assessment Guideline* (October 2022). Consideration was also given to all relevant Australian and industry standards, including MUSIC modelling guidelines applicable to the Sydney Drinking Water Catchment. The Site lies within WaterNSW's Development Classification 'Class T – Module Group 5', and as such, the Proposal is required to be referred to WaterNSW for concurrence. A full stormwater report is provided in Appendix 8.

10.1. Existing Conditions

10.1.1. Site Topography

The topography of the Site is defined by two distinct surface regimes. The majority of the eastern section, which lies outside the proposed development precinct, exhibits a gentle fall from the southeast to the northwest at an average grade of approximately 3.3 per cent. This area features minor changes in microrelief, with several shallow drainage depressions and farm dams located throughout. The western quarter of the Site, which contains the proposed development footprint, falls from the southwest to the north-northeast. The two topographical zones converge within a defined drainage depression that traverses the property in a generally south-to-north direction.

10.1.2. Site stormwater drainage

The existing stormwater drainage system on Site comprises several natural drainage depressions and farm dams, many of which appear to have been constructed as part of historical soil and water management activities. The most significant drainage corridor runs in a south-to-north direction, parallel to Murrays Flat Road, and is located approximately 200 metres east of the western boundary. This corridor features a medium-sized dam situated in the northern portion of the Site and receives upstream flows from catchments located to the south, including land extending beyond the Hume Highway.

A second drainage line traverses the eastern portion of the Site in a southeast to northwest alignment. This system includes a series of smaller dams arranged in a cascading sequence. Outflows from both the primary and secondary drainage corridors ultimately discharge into a dam located near the northern boundary of the Site. The combined flows from this dam exit the property and drain towards the Wollondilly River, which is located approximately 800 metres to the north.

Several additional smaller dams are scattered throughout the Site. In the eastern paddocks, some of these dams are connected to diversion berms that follow the contour of the land to intercept and direct upslope runoff. Other dams, particularly within the western paddocks proposed for development, appear to have been historically used for livestock watering purposes and have limited catchment areas. The roof of the existing dwelling is currently fitted with an 80,000-litre rainwater tank, located immediately north of the building, for domestic use. However, this capacity is inadequate for the future operational requirements of the proposed facility, and an additional water tank of equal size is recommended to supplement potable water storage.

10.1.3. Existing Water Quality

Surface water within the locality drains toward the Wollondilly River approximately 800 metres north of the Site. The WCMS identifies that existing drainage lines and farm dams across the Site form part of a broader local catchment system receiving runoff from surrounding rural lands, including catchments extending south of the Hume Highway.

The WCMS notes that the Proposal is classified as a Development Class 'T – Module Group 5' development under the WaterNSW development classification framework and therefore requires consideration of water quality outcomes and neutral or beneficial effect (NorBE) principles.

Existing land use across the Site and surrounding locality is characterised by rural and agricultural activities, including grazing and historically disturbed land. These activities contribute to existing background sediment and nutrient loads within local drainage systems during rainfall events.

To manage stormwater quality associated with the Proposal, the WCMS incorporates a range of treatment and management measures including lined sedimentation basins, diversion swales, rainwater harvesting infrastructure, and a downstream biofiltration raingarden system. These measures are designed to reduce suspended solids, phosphorus and nitrogen concentrations and achieve a neutral or beneficial effect on downstream water quality.

10.1.4. Wollondilly River Water Quality

The Wollondilly River forms part of the broader Sydney Drinking Water Catchment and is located approximately 800 metres north of the Site. The river is monitored by WaterNSW as part of its routine water quality monitoring program for the Warragamba catchment system.

WaterNSW monitoring data for the Wollondilly River at Murrays Flat (Station E409) indicates that water quality within this section of the river is influenced by surrounding rural and agricultural land uses and periodic wet weather inflows. The monitoring program compares sampled water quality results against Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2018) benchmark criteria for catchment streams.

Table 5.1 of the WaterNSW *Annual Water Quality Monitoring Report* 2025 identifies that the Wollondilly River at Murrays Flat recorded exceedances of several benchmark parameters during the monitoring period, particularly for conductivity, total hardness, turbidity, total nitrogen and total phosphorus. Specifically, monitoring results for Station E409 recorded benchmark exceedances for:

- conductivity (75% of samples);
- total hardness (100% of samples);
- turbidity (100% of samples);
- total nitrogen (83% of samples);
- total phosphorus (100% of samples); and
- chlorophyll-a (92% of samples).

WaterNSW notes that catchments dominated by agricultural and urban land uses regularly exceeded guideline benchmarks during FY25, particularly following rainfall events, with elevated nutrient concentrations and turbidity commonly associated with runoff from disturbed or developed catchments. The report further notes that water quality within the Wollondilly River system generally improves downstream where the river enters more protected catchment areas.

The existing water quality conditions within the Wollondilly River catchment have informed the stormwater and water quality management measures incorporated into the Proposal, including the adoption of a treatment train approach, sedimentation basins, lined infrastructure, biofiltration systems and water reuse measures designed to achieve a neutral or beneficial effect on downstream receiving waters.

10.1.5. Vegetation

The vegetation structure of the Site is dominated by open grasslands and improved pasture, reflecting a long history of agricultural use, particularly livestock grazing and potentially silage production. Regular slashing appears to have been employed historically to maintain paddock condition. The main drainage corridor includes a limited number of mature trees along the western bank of the dam, while the drainage system near the northern boundary features scattered trees and shrubs along inflow and outflow paths and around dam embankments.

The area proposed for the metal recycling facility is similarly composed of open pasture and exhibits minimal variation in vegetation cover. A short row of *Pinus radiata* is located to the south of the existing driveway entrance, providing some visual screening from Murrays Flat Road and partial wind protection for the existing dwelling. To the north of the entrance, a small continuation of tree cover follows the western boundary and then shifts eastwards for approximately 50 metres, providing additional shielding from prevailing winds and road traffic.

10.1.6. Other Constraints

The Site is partially affected by overland flow paths and flood impacts associated with the Wollondilly River during significant rainfall events. The drainage corridors that traverse the Site are subject to periodic inundation in large to rare rainfall events, and the Site is mapped as being within the extent of the Probable Maximum Flood (PMF).

A flood study has also been prepared for the Proposal, and this is addressed separately in Section 20 of the EIS.

The proposed development footprint is located in the southwest corner of the property, which represents the highest topographic point on the landholding and is generally free of flood hazard. While minor surface ponding may occur within this zone during heavy rainfall, the design of the stormwater management system deliberately accommodates such ponding to facilitate detention and first-flush capture. Importantly, the location and design of the facility ensure that it does not cross, interfere with, or obstruct any of the natural drainage corridors on the Site.

10.1.7. Geotechnical Conditions – Soils, Groundwater, Salinity and Dispersiveness

A geotechnical investigation was undertaken by Development Risk Management Pty Ltd, with fieldwork and laboratory testing completed by Core Geotech Pty Ltd to characterise subsurface conditions at the Site. See Appendix 25 for the full Geotechnical Report.

The investigation identified that the Site is underlain by a sequence of predominantly clayey soils of alluvial and residual origin. Near-surface materials generally comprise silty clay topsoil with gravel, extending to depths of approximately 0.8 metres. This is underlain by high plasticity alluvial and residual clays, typically described as gravelly clay with varying moisture conditions and consistency ranging from firm to very stiff, becoming very stiff to hard with depth. Extremely weathered bedrock, comprising decomposed granite materials, was encountered at deeper levels. Laboratory testing indicates that the soils exhibit variable plasticity, with field moisture contents ranging from approximately 7.9% to 23.5%, reflecting a range of soil reactivity across the Site.

Groundwater was not encountered during the geotechnical investigation to depths of up to approximately 8 metres below ground level. However, available regional data indicates the presence of a registered groundwater bore within the Site, with a recorded standing water level at approximately 15 metres below ground level. Groundwater levels may fluctuate in response to seasonal rainfall conditions and other environmental factors, and as such, the absence of groundwater during the investigation does not preclude its presence at other times.

Assessment of soil salinity, based on electrical conductivity testing and derived salinity classifications, indicates that the majority of soils at the Site are non-saline to slightly saline, with isolated instances of moderately saline conditions. Measured pH values range from approximately 6.4 to 8.8, indicating generally neutral to slightly alkaline conditions. On this basis, the Site is considered to have a low salinity risk overall, and an exposure classification of A1 is considered applicable for most areas.

Soil dispersiveness testing, undertaken using the Emerson Class Number (ECN), indicates that soils at the Site generally fall within Classes 2 to 4. Class 2 soils are noted to have a tendency to slake and exhibit some degree of dispersion, particularly when remoulded, while higher class soils (Classes 3 to 4) demonstrate reduced dispersive behaviour. Overall, the results indicate that some soils at the Site may be moderately dispersive and should be appropriately managed during earthworks to minimise the potential for erosion and instability.

10.1.8. Water Licensing and Supply

The development property is located within the 'Goulburn Fractured Rock Groundwater Source' as defined in the *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2011* administered under 'Section 50 of the Water Management Act (2000)', which sets out prescribed activities and conditions for water supply works associated with a groundwater source – including bores.

No water supply work or water access licence is required, and no groundwater bores are proposed. During construction and operations, water will be either purchased and brought into Site via external contractors or harvested from stormwater basins and rooftop rainwater runoff sources. Note that the basins will be constructed and used as temporary runoff basins for erosion and sediment control during construction.

In addition, excavation for stormwater basins, structural footings, access tracks and operational areas are not expected to intercept groundwater due to the depth of groundwater in this area.

10.1.9. Controlled activity approval

It is considered that no Controlled Activity permit is required as the Proposal boundary does not cross any drainages and is greater than 40m from the top of any waterway bank.

The eastern edge of the recycling precinct is aligned such that no part of the operations will be within 50 metres of the 'top of bank' of the main drainage channel that runs through the property.

Disturbance required for the building of the facility and water quality basins are all contained outside of 50m of the waterway.

However, the last biofiltration basin is approximately 20m from an agricultural dam that forms part of the existing harvestable rights network for the entire lot. An outlet pipe (225mm diameter) from the base of the biofiltration basin will be constructed to drain overflows from the basin to the existing dam within the overland flow corridor to the east, concrete headwall with energy dissipater and scour pad at the outlet point.

The project has been designed to meet NORBE requirements. A conceptual soil and water management plan is included in Appendix 8. A detailed soil and water management plan will be prepared prior to construction of the Proposal and will include erosion and sediment control requirements around the additional pipe and energy dissipator at the discharge point in the dam.

10.2. Impact Assessment

The development of the proposed metal recycling facility has the potential to alter the existing stormwater regime if not appropriately managed. Key issues relate to increased impervious surfaces, changes to surface flow paths, and the generation of pollutants associated with operational activities.

The replacement of pasture and grassland areas with hardstand and building footprints will increase the proportion of impervious surfaces within the development precinct. This change has the potential to increase the rate and volume of stormwater runoff, thereby modifying the hydrological response of the Site. Without mitigation, these changes could result in greater runoff velocities, localised erosion, and a reduction in infiltration capacity across the western portion of the property. In addition, the concentration of stormwater within newly defined drainage lines has the potential to increase discharge volumes to the downstream receiving environments.

The introduction of industrial activities, including vehicle movements, metal processing, and storage operations, presents a risk of pollutants being entrained in surface runoff. Likely pollutants include suspended solids, hydrocarbons, heavy metals, nutrients, and gross pollutants generated from external operational areas. If untreated, these pollutants could adversely affect the water quality of the site's internal dams and downstream waterways, particularly the Wollondilly River, which lies approximately 800 metres to the north. The WCMS identified these pollutant sources and modelled their potential impacts using the MUSIC program. The modelling outcomes confirmed that untreated runoff would exceed guideline pollutant load targets and therefore represents a potential risk to the integrity of the downstream drinking water catchment.

In addition to water quality impacts, potential risks were also identified in relation to stormwater quantity and overland flow behaviour. Increased runoff volumes may exacerbate minor ponding and change flow characteristics in the local drainage system. Although the proposed development is located outside of mapped flood extents, uncontrolled discharge from the Site has the potential to compound flood risk in downstream environments if not properly managed. The WCMS therefore incorporated hydraulic design measures to ensure post-development flows are maintained within acceptable limits.

10.2.1. Proposed Stormwater Management Systems

The following measures are proposed as part of the Site's stormwater management system:

- The installation of the waterproofing materials under the recycling precinct and internal roadways including a geosynthetic clay liner is installed a 1.5mm to 2.0mm linear low-density polyethylene (LLDPE) geomembrane;
- The stormwater management system within the recycling precinct will consist of three separate sedimentation basins will be constructed to collect, settle, and then discharge water to an 'end-of-line' treatment device before any runoff flows further downstream of the Site;
- The three sedimentation basins will also be fully lined internally to prevent any potentially contaminated water percolating down into the groundwater system;

- The 'end-of-line' treatment will consist of a biofiltration raingarden treatment device will have a surface area of 1,000m² (nominally 50 metres long by 20 metres wide) with the following characteristics:
 - Extended detention depth of 300mm;
 - Filter media depth of 800mm (refer to Section 7 for the typical characteristics of the filter media used in the biofiltration device);
 - A drainage layer depth of 200mm;
 - Saturated hydraulic conductivity of 200mm/hour;
 - Total nitrogen content of 400mg/kg;
 - Orthophosphate content of 30mg/kg;
 - Vegetated with effective nutrient removal plants;
 - 100Ø socked and slotted draincoil underdrains at the rate 1 per 1 metre width of biofiltration media;
 - 50mm layer of 20mm to 40mm diameter rock mulch over the surface area; and
 - A 225mm diameter outlet pipe at the base of the drainage layer that will extend to the existing dam located on the southern aspect of the Right of Carriageway that runs along the northern boundary with a stabilised outlet

10.2.2. Water Balance and Onsite Reuse

The WCMS includes water balance modelling undertaken within the MUSIC model framework to assess annual reuse demands associated with dust suppression, cleaning activities, and operational water requirements. The modelling outcomes demonstrate that the proposed stormwater reuse system will substantially reduce potable water demand across the Site.

The modelling identified that:

- Basin #1 will satisfy 99.92% of the annual re-use requirements;
- Basin #2 will satisfy 97.23% of the annual re-use requirements; and
- Basin #3 will satisfy 99.50% of the annual re-use requirements.

The 150,000 litre rainwater tank proposed at the end of the workshop building will satisfy 92.33% of the annual re-use requirements.

The reuse assumptions adopted in the modelling are based on operational demands identified within the WCMS, including reuse rates for dust suppression and general cleaning activities associated with the metal recycling facility. The MUSIC model developed as part of the WCMS will be included as part of the documentation uploaded to the NSW Planning Portal to support the NorBE assessment and WaterNSW concurrence process. The MUSIC model is included in Appendix 26.

10.2.3. Neutral or Beneficial Effect (NorBE) assessment,

The Neutral or Beneficial Effect (NorBE) assessment, undertaken in accordance with WaterNSW guidelines, confirmed that while potential adverse impacts are possible under an uncontrolled development scenario, the implementation of the proposed treatment train and stormwater drainage layout will prevent these impacts from occurring. The modelling demonstrated that pollutant load reductions achieved through the proposed system are consistent with, and in most cases exceed, the guideline criteria for the Sydney Drinking Water Catchment. Accordingly, the Water Cycle Management Study concludes that the proposed development will not result in a deterioration of downstream water quality and will maintain a neutral or beneficial effect on the receiving environment.

Table 10.1 which demonstrates that the residual pollutant concentrations between the pre-development and post-development stages have achieved the objectives of the NorBE (Neutral or Beneficial Effect) criteria by achieving a minimum of 10% reduction for all three pollutant types.

Table 10.1. Comparison of the residual pre-development and post-development pollutant concentrations.

	Annual Pollutant Loading (kg/year)		
	TSS	TP	TN
Pre-development loading	567	0.892	8.380
Post-development loading	442	0.555	7.385
Reduction %	22.05	37.78	11.87

In addition, cumulative frequency charts are provided on page 23 of the WCMS for suspended solids, phosphorus and nitrogen demonstrating that the proposed chain of treatment measures comply with the NorBE requirements. Post- development frequency lines are provided for each. The analysis compares pollutant concentrations before and after development, focusing on the 50th to 98th percentile of runoff events. Charts show cumulative frequency data for suspended solids, phosphorus, and nitrogen, confirming that the proposed treatment measures effectively reduce pollutants. Refer to Appendix 26 for the Music Model file.

10.2.4. Monitoring and Maintenance

The protection of stormwater quality improvement devices (SQIDs), particularly the proposed biofiltration raingarden, is critical to ensuring their long-term performance and safeguarding the investment in water quality improvements. These devices are vulnerable to physical and mechanical damage during the construction phase and must be carefully managed both during installation and throughout their operational life. To support their ongoing effectiveness, an Operational Environmental Management Plan (OEMP) has been prepared. The OEMP outlines responsibilities and maintenance requirements for each device to ensure they function as intended.

Long-term viability will be maintained through regular inspection, vegetation management, and adherence to an Operational Environmental Management Plan (OEMP), which has been developed for the Proposal and is included in Appendix 20. The OEMP includes procedures for monitoring and maintaining the stormwater systems.

10.2.5. Construction Erosion and Sediment Control

Temporary erosion and sediment control measures will be critical during construction to protect the device prior to commissioning.

A Conceptual Soil and Water Management Plan (SWMP) is provided in the WCMS and has been prepared in accordance with the guideline *Managing Urban Stormwater: Soils and construction - Volume 1* (Landcom 2004).

The SWMP includes appropriate sediment basin sizing, site pre-works establishment and construction phasing and post-construction works.

10.3. Mitigation Measures

The mitigation measures outlined in Table 10.2 will be implemented to ensure compliance with stormwater management plans.

Table 10.2. Mitigation measures for stormwater management.

Mitigation Measures	Responsibility	Timing / Frequency
Prepare a Construction Soil and Water Management Plan that includes the recommended construction related staging and controls below with reference to the conceptual soil and water management strategy in the Water Cycle Management Study (SOWDES, October 2025).	Builder	Site pre-works and establishment
For the duration of the civil works phase establish a stabilised Site access in accordance with Standard Drawing SD6-14 at each of the proposed entrances to the Site that will eventually become the formal entrance and exit points for the metal recycling precinct component of the development.	Builder	Site pre-works and establishment
Prior to the commencement of any civil works install sediment control barriers in accordance with Standard Drawing SD6-8 along the eastern aspect of the recycling precinct and the location of Basin #3 and the biofiltration raingarden system and ensure that the clean water diversion on the western and southern aspects are formed.	Builder	Site pre-works and establishment
Establish a Site office and compound area that will be the designated space for carparking on the Site for the duration of the civil works.	Builder	Site pre-works and establishment
Define the work areas for the construction and installation of the various stormwater quality improvement devices (SQID's) and create a clear separation from the main traffic streams that will be used during the earthworks and civil works.	Builder	Site pre-works and establishment
Determine the location for separate stockpile areas for rubble, concrete, and excavated spoil within the higher elevations of the Site and away from any overland flow paths, form the stockpiles in accordance with	Builder	Site pre-works and establishment

Mitigation Measures	Responsibility	Timing / Frequency
Standard Drawing SD4-1 and line the lower side of each stockpile with barrier fencing in accordance with Standard Drawing SD6-8.		
Determine a Site for the placement of general rubbish and the delivery of associated materials to the Site – in particular the supply of the soils and earth-based filter media materials and line the lower side of each Site with barrier fencing in accordance with Standard Drawing SD6-8.	Builder	Site pre-works and establishment
As much as possible and practical, limit the amount of delivered soil-based materials to quantities that can be installed at one time to avoid the need for stockpiling. Terminate all redundant utilities and services that are in the nominated work zone, make safe, and remove unwanted infrastructure.	Builder	Site pre-works and establishment
Until all works associated with the development are completed check and maintain the condition of all sediment control fences and other measures on a weekly basis or after rain events that generate 25mm or more within a 24 hour period, and be prepared to stop all works on short notice if there is a possibility that rain events could generate overland flows that could burden the Site.	Builder	Site pre-works and establishment
Prior to commencing any bulk earthworks have provisions and arrangements in place for the transfer of virgin excavated soil, gravel, and/or rock materials to a suitable receival facility that will be in excess of the quantities that can practically be re-used on the Site - spreading of excess spoil or other excavated materials on the Site is not permitted due to potential changes in surface water flow patterns and possible downstream impacts.	Builder	Site pre-works and establishment
Maintain and continue to use the established stabilised Site accesses created off Murrays Flat Road for the duration of the civil works	Builder	Construction Phase
Erect sediment control barriers in accordance with Standard Drawing SD6-8 along the lower eastern aspects of the development Site and maintain until all earthworks are completed and re-vegetation / landscaping has achieved an effective 80% cover.	Builder	Construction Phase
Create the clean water diversion swales and berms along the western and southern aspects of the recycling precinct to redirect surface water away from the work zones.	Builder	Construction Phase
Remove all bitumen, concrete, sub-grade materials, topsoil, and excess soil from the metal recycling precinct, the internal roadways, car parking provisions, sedimentation basins, and biofiltration raingarden system including any inground services and temporarily store in the nominated stockpile areas for later use and/or removal off site	Builder	Construction Phase
Decommission the existing dam located to the east of the proposed location for the workshop and recycling shed structures by draining the water, allowing the area to dry to a workable state, and then fill with clean material in layers not exceeding 150mm with compaction of each layer to achieve 98% dry density ratio to standard compaction.	Builder	Construction Phase
Undertake all Site levelling and/or regrading to the design specifications to establish the base levels and profiles for the new works and stabilise any batters with a grass cover once the final levels are achieved - place all excess materials in the nominated stockpile areas and bays for later reuse or removal offsite.	Builder	Construction Phase
Install all inground pipes, pits, and junctions associated with the installation of stormwater and sewer drainage services, the water supply systems, and all utilities within the metal recycling precinct and between the administration precinct and the metal recycling precinct and cap-off or terminate so as to not cause nuisance and protect from possible damage.	Builder	Construction Phase
Construct the sedimentation basins to the design levels including the incoming and outgoing pipes, and allow each basin to be used as a temporary sedimentation basin for the duration of the earthworks and	Builder	Construction Phase

Mitigation Measures	Responsibility	Timing / Frequency
Site regrading. Water captured in the sedimentation basins can be reused throughout the civil works phase for dust suppression, irrigating landscaped areas, and material compaction purposes.		
For the duration of the civil works the collection, treatment, and use of water within the sedimentation basins is to be managed in accordance with Section 6.3 of the 'Blue Book' (Landcom, 2004).	Builder	Construction Phase
Undertake the subsurface waterproofing works to the manufacturer's technical instructions and specifications and ensure that all treatment layers are installed properly and sealed around possible weak points such as the pit and pipe upturns, concrete plinths and slabs, retaining walls, and any other service or infrastructure element that will penetrate the continuity of the lining materials.	Builder	Construction Phase
Once the waterproofing process is completed and certified the base layer of the gravel materials can be imported and compacted in layers not exceeding 100mm to the design levels and grades under the supervision of a certified geotechnical engineer.	Builder	Construction Phase
It is recommended that the concrete roadways not be constructed at this stage to alleviate the possibility of unnecessary damage, and to allow continued traffic movement over the compacted gravel which will help stabilise and test the base layers for any weaknesses before the roadway is finally formed and finished.	Builder	Construction Phase
For pits and pipe upturns associated with the drainage systems that will not be finished until later in the works protect the inlets from sediment ingress in accordance with Standard Drawing SD6-12 and retain until all earthworks and the drainage systems are finalised.	Builder	Construction Phase
After the gravel layers are finished construction can commence for the new buildings to the design specifications and the placement of processing machinery with covers can be undertaken in the designated locations.	Builder	Construction Phase
Once the new sheds are constructed the proposed 150,000 litre rainwater tank is to be installed to allow the rainwater runoff from the sheds to drain into the tank and lessen any nuisance around the work zones.	Builder	Construction Phase
Similarly, once the processing machinery is installed and roofed covers completed the rainwater runoff from these structures is to be connected to the stormwater pits along the southern edge of the internal link roadway to also lessen any nuisance around the work zone.	Builder	Construction Phase
When construction of the sheds and the placement of the processing machinery is completed any final trimming, filling, levelling, and compaction of the gravel base layer is to be undertaken in readiness for forming and pouring of the internal concrete roadways to the design details.	Builder	Construction Phase
With the internal carriageways completed the grass lined swale along the eastern aspect of the recycling precinct can be formed to the design levels and grades, and at the same time the clean water diversions on the western and southern aspects of the recycling precinct can be checked for any damages, rectified and necessary to ensure that they will continue to divert clean water away, and any re-vegetation can be implemented.	Builder	Construction Phase
At this stage the sedimentation basins can be decommissioned from their temporary function during the civil works phase to their intended permanent use by appropriately settling the water and decanting the contents, allowing the surface to dry to a workable state, and then placing the waterproofing membranes and geotextile layers as per the manufacturer's specifications.	Builder	Construction Phase
The final phase of the civil works involves the construction of the biofiltration raingarden system on the outlet side of Basin #3 to the design details and specifications, and the placement of the drainage	Builder	Construction Phase

Mitigation Measures	Responsibility	Timing / Frequency
layer, filter media, rock mulch cover, and vegetation to achieve the required plant density over the entire surface area. This stage should be undertaken close to the end of the civil works to help prevent sediment laden stormwater drainage adversely affecting the different filter and drainage layer materials, and to protect the integrity of the plans until such time as cleaner water is effectively entering the system.		
After all earthworks and the construction of the new buildings and covers are completed remove any excess excavated materials that cannot be reused otherwise on the Site along with other rubbish and general waste to an approved offsite repository.	Builder	Construction Phase
Remove all temporary barrier fencing and sediment control measures once any re-vegetation and/or landscaping has achieved the desired effective cover or finish	Builder	Post construction undertakings
Monitor the survivability of the plants within the biofiltration system and replace as necessary until at least 80% effective cover has been established	Builder	Post construction undertakings
Check the condition of all sediment control fencing at least weekly and after rain events and rectify as necessary to ensure that they are effective and ready for next rain event	Construction Management	On-going
All topsoil stockpiles to be in accordance with Landcom Standard Drawing SD4-1	Construction Management	On-going
All sediment control barriers to be in accordance with Landcom Standard Drawings SD6-8	Construction Management	On-going
All pipe upturns and drainage pits to be protected from sediment laden stormwater ingress in accordance with Standard Drawing SD6-12	Construction Management	On-going
The stabilised Site accesses are to be installed in accordance with Landcom Standard Drawing SD6-14	Construction Management	On-going
Check the condition of all stormwater basins at least weekly and after rain events and rectify as necessary to ensure that they are effective and ready for next rain event	Operational Management	On-going
Sedimentation basins will require periodic removal of accumulated sediments and any entrapped heavy metals from the base to retain the design operating volumes.	Operational Management	On-going
To protect the geomembrane liner around the internal faces of the sedimentation basins, removal of accumulated materials will need to be performed manually rather than by machine to avoid causing damage.	Operational Management	On-going
Perform periodic inspection and maintenance of the biofiltration raingarden treatment device to maintain capacity and proper functioning.	Operational Management	On-going
Train on-site staff on stormwater management procedures, guidelines and requirements.	Operational Management	On-going
Periodically inspect, pump-out and clean all spill containment tanks	Operational Management	On-going

10.4. Conclusion

The Water Cycle Management Study confirms that, while the proposed development has the potential to increase runoff and pollutant loads, these impacts will be effectively managed through the implementation of a site-specific stormwater treatment train. This includes proposed wastewater and stormwater infrastructure, lined sedimentation basins, geomembrane liners under all operational areas, plant de-pollution and recycling measures, erosion and sediment controls, stormwater capture, conveyance and treatment systems and water quality treatment as proposed and modelled.

MUSIC modelling demonstrates that the adopted measures meet the pollutant reduction targets and comply with WaterNSW's NorBE requirements.

Accordingly, the development is not expected to result in adverse stormwater impacts or deterioration of downstream water quality.

11. Air Quality Assessment

Northstar Air Quality Pty Ltd (Northstar) prepared an Air Quality Impact Assessment (AQIA) as part of the environmental assessment in accordance with the NSW EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2022a).

The AQIA has been prepared to identify and assess potential air quality impacts associated with the operational phase of the Proposal. It also outlines appropriate mitigation and monitoring measures necessary to ensure that relevant air quality criteria are met at all surrounding sensitive receptor locations. A full copy of the Air quality assessment report is provided in Appendix 9.

11.1. Existing Conditions

The elevation of the Proposal Site ranges between approximately 630 m and 650 m Australian Height Datum (AHD). The topography between the Proposal Site and the nearest sensitive receptors is uncomplicated and unlikely to result in significant variations in pollutant dispersion. Regional meteorological data were obtained from the Bureau of Meteorology (BoM), specifically from two Automatic Weather Stations (AWS) located within a 50 km radius of the Proposal site. These stations are summarised in Table 11.1 below.

Table 11.1 Details of BoM meteorological monitoring stations within 50 km of Proposal site.

Site Name	Station #	Approximate Location		Approximate distance (km)
		mE	mS	
Goulburn Airport	070330	780960	6110375	9.2
Nerriga	069128	749829	6144792	49.8

Wind rose data for the Goulburn Airport AWS (2018–2022) indicate dominant winds from the west-northwest. Wind speeds typically ranged between 1.5 m/s and 8 m/s, with higher speeds (>8 m/s) observed predominantly from the west-northwest. Calm conditions (<0.5 m/s) occurred approximately 6.4% of the time across the five-year period. Following a statistical correlation analysis, the year 2020 was selected as the representative meteorological year for dispersion modelling.

There are no NSW DCCEEW ambient air quality monitoring stations within 20 km of the Proposal site. However, four stations were identified within 100 km, with the Bargo station selected as the most representative for 2020 data. Data on PM₁₀, PM_{2.5}, and NO₂ were sourced from this station for use in the AQIA. Total Suspended Particulates (TSP) data were not available; however, a regionally accepted ratio of TSP:PM₁₀ (2.2434:1) was used to derive background annual average TSP concentrations. This ratio is consistent with historical practice in NSW for locations without direct TSP monitoring.

While the AQMS data indicate elevated particulate matter levels in early 2020 primarily attributed to drought and bushfires these conditions have been factored into the background dataset. No background data for metals (e.g. copper, iron oxide, manganese, chromium VI) were required, as the assessment is limited to incremental impacts only, per the NSW EPA's *Approved Methods*.

11.2. Impacts Assessment

NorthStar has identified three key categories of potential air quality impacts associated with the Proposal:

- Cumulative impacts from surrounding industrial activities;
- Construction-phase impacts; and
- Operational-phase impacts.

11.2.1. Cumulative Impact Assessment

The locality surrounding the Proposal Site is predominantly rural. A desktop review of the NSW EPA's Protection of the Environment Operations (POEO) Public Register was undertaken to identify other licensed premises within the Goulburn Mulwaree Local Government Area (LGA) with comparable emission profiles that may contribute to cumulative air quality impacts at sensitive receptor locations.

This review identified 22 Environment Protection Licences (EPLs) within the Goulburn Mulwaree LGA. Of these, none were identified as operating facilities engaged in metals recovery or scrap metal processing. One facility,

Divall's Quarry, located approximately 4.1 km to the east of the Proposal site, conducts crushing, grinding, and separating activities and was deemed the only potentially relevant source of cumulative emissions. In addition, a search of the National Pollutant Inventory (NPI) for the 2021–2022 reporting year identified three NPI-reporting facilities within a 5 km radius of the Proposal site. However, none were associated with metal processing, handling, or recycling activities.

Given the rural setting and limited number of similar industrial sources in proximity to the Proposal site, the potential for cumulative air quality impacts is considered to be low. Further, the pre-shredding and shredding activities at the Proposal Site will be undertaken within a screened enclosure, further reducing the likelihood of off-site impacts.

11.2.2. Construction Impact Assessment

Construction activities associated with the Proposal have the potential to generate short-term emissions of particulate matter, primarily as fugitive dust. These emissions are typically experienced as amenity impacts, such as visible dust plumes and dust deposition, rather than direct health impacts.

A qualitative risk-based assessment has been undertaken to identify the relative risk associated with different construction activities. This method allows the most significant sources of potential dust emissions to be managed with appropriate mitigation and management controls.

The sensitivity of the identified receptor locations is considered to be low in relation to dust soiling and medium in relation to human health impacts. Based on the dust emission magnitudes associated with various construction activities, a summary of risk levels (prior to the application of mitigation) is presented in Table 11.2.

Table 11.2. Risk of air quality impacts from construction activities.

Sensitivity of area	Dust Emission Magnitude					Preliminary Risk				
	Demolition	Earthworks	Construction	Track-out	Const. Traffic	Demolition	Earthworks	Construction	Track-out	Const-Traffic
Dust Soiling										
Med	NA	Med	Med	Small	NA	Neg	Med	Med	Low	Neg
Human Health										
Low	NA	Med	Med	Small	NA	Neg	Low	Low	Neg	Neg

The risk assessment indicates:

- A medium risk of dust soiling impacts and a low risk of health impacts associated with earthworks and general construction activities;
- A low risk of dust soiling and a negligible risk of health impacts from trackout activities; and
- Negligible risks associated with emissions from demolition and construction traffic movements, assuming no mitigation is in place.

Based on the scale of the Proposal, the setback distances to sensitive receptors, and the nature of the construction activities, residual impacts from construction-phase dust emissions are expected to be negligible, provided that the recommended mitigation measures are implemented.

The measures outlined in Table B10 in Appendix B of the AQIA will be incorporated into a Construction Environmental Management Plan post approval.

11.2.3. Operational Impact Assessment

An air quality impact assessment was conducted to evaluate emissions associated with the operation of the Proposal, including processing activities such as metal shearing, shredding, and materials handling. The assessment considered emissions of particulate matter (TSP, PM₁₀, PM_{2.5}), metals, nitrogen dioxide (NO₂), and odour.

Mitigation measures embedded in the Proposal design including dust suppression systems (such as the Dust-Buster foam control for the hammermill), operational enclosures, and routine maintenance of materials handling equipment are expected to further minimise emissions and ensure compliance. Air quality controls are built into the design and operations of the facility and include the following:

- 'Dust-Buster' dust control on shredder equipment using foam and foaming chemicals (85% efficiency);
- Water sprays during truck unloading activities (70% efficiency);
- Water sprays at handling and transfer points (50% efficiency);
- Above-ground acoustic wall enclosure around pre-shredder and shredder equipment (70% efficiency);
- Awning enclosure of non-ferrous processing equipment (70% efficiency);
- Controlled crushing at pre-shredder and hammermill shredder (77.7% efficiency);
- Controlled screening at non-ferrous sorting plant (Drumfeeder, Finesmaster, KSS) (91.2% efficiency);
- Wind shielding for conveyors (70% efficiency);
- Enclosures used for material transfers (70% efficiency); and
- Minimisation of material drop heights at handling and transfer points (30% efficiency).

Paved Haul Routes

- All vehicle loads covered when transporting material off-site (control not quantified);
- Load sizes limited to avoid exceeding truck sidewalls (control not quantified);
- Road flushing or water application on paved haulage routes (30–70% efficiency);
- Speed reduction of vehicles on site to 50 km/h (40% efficiency); and

Paved road sweeping to manage haul routes (50% efficiency)

Modelling outcomes demonstrate that predicted operational emissions comply with relevant NSW EPA impact assessment criteria. The combined incremental and background concentrations for PM₁₀ and PM_{2.5} do not result in any additional exceedances of the applicable 24-hour or annual criteria. The maximum incremental increases attributed to the Proposal are minimal and do not substantially influence total cumulative concentrations.

For deposited dust, annual dust deposition rates remain below the NSW EPA maximum allowable limit of 4 g/m²/month. Similarly, all predicted concentrations of assessed metals (e.g. copper, manganese, iron oxide fumes, and chromium VI) fall well below the adopted impact assessment thresholds, indicating a negligible risk to human health and the environment.

The results indicate that predicted cumulative concentrations of NO₂ at all receptor locations are low and would comply with both the annual and maximum 1-hour average criteria.

On the basis of the modelled results and proposed mitigation, the operational phase of the Proposal is not expected to result in unacceptable impacts to air quality at surrounding sensitive receptors.

11.2.4. Odour Impact Assessment

Potential odorous emissions are primarily associated with the operating zones of the oxycutter and hammermill shredder. Specific materials arriving at the Proposal site, such as End of Life Vehicles (EOLVs), undergo screening to detect the presence of unacceptable materials and are subsequently processed using specialised equipment such as oxy-acetylene cutters prior to shearing. The oxy-acetylene cutters employ oxygen (O₂) and acetylene gas as a fuel source to generate a high-temperature flame for metal cutting. It is noted that commercial-grade acetylene gas is infused with a distinctive odorant like methyl mercaptan and moreover, additional odorous compounds may potentially be derived as a result from oxy-cutting and grinding activities, including the burning or vaporisation of metals.

Odours may arise from the pre-shredder and hammermill due to the mechanical shredding process which involves high-speed impact and grinding. These processes generate heat and friction which then can potentially release

volatile organic compounds (VOCs) from the metal, coatings, or surface contaminants during shredding. If the shredded metal contains coatings, paints, or oils, these substances can also be released and vaporised during the shredding process which may contain odorous compounds.

Odour modelling indicates that the maximum predicted ground-level concentration is 1.0 odour unit, well below the adopted criterion of 6.0 odour units for the rural setting. As such, odour impacts from operational activities are not anticipated to result in nuisance or regulatory exceedances.

11.3. Mitigation Measures

The mitigation measures outlined in Table 11.3 will be implemented to ensure compliance with air quality requirements and best practices.

Table 11.3. Air Quality Construction Phase Mitigation Measures.

Mitigation Measures	Responsibility	Timing / Frequency
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	Site Management	On-going
Display the name and contact details of person(s) accountable for air quality and dust issues on the Site boundary. This may be the environment manager/engineer or the Site manager.	Site Management	On-going
Display the head or regional office contact information.	Site Management	On-going
Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the relevant regulatory bodies.	Site Management	On-going
Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Site Management	On-going
Make the complaints log available to Council and/or NSW EPA when asked.	Site Management	On-going
Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.	Site Management	On-going
Conduct daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when requested.	Operational Management	On-going
Carry out regular site inspections to monitor compliance with the DMP / CEMP, record inspection results, and maintain an inspection log available to Council and/or NSW EPA when requested.	Operational Management	On-going
Increase the frequency of site inspections by the person accountable for air quality and dust issues on Site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	Operational Management	On-going
Plan Site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	Site Management	Construction

Mitigation Measures	Responsibility	Timing / Frequency
Erect solid screens or barriers around dusty activities or the Site boundary that they are at least as high as any stockpiles on site.	Site Management	Construction
Fully enclose the Site or specific operations where there is a high potential for dust production and the Site is active for an extensive period.	Site Management	Construction
Avoid site runoff of water or mud.	Operational Management	On-going
Keep site fencing, barriers and scaffolding clean using wet methods.	Operational Management	On-going
Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below	Operational Management	On-going
Cover, seed or fence stockpiles to prevent wind erosion	Operational Management	On-going
Ensure all on-road vehicles comply with relevant vehicle emission standards, where applicable	Site Management	On-going
Ensure all vehicles switch off engines when stationary	Operational Management	On-going
Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment, where practicable	Operational Management	On-going
Impose and signpost a maximum-speed-limit of 25 km·h ⁻¹ on surfaced and 15 km·h ⁻¹ on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).	Site Management	On-going
Implement a Travel Plan that supports and encourages sustainable travel	Site Management	On-going
Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems	Operational Management	On-going
Ensure an adequate water supply on the Site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate	Operational Management	On-going
Use enclosed chutes and conveyors and covered skips	Operational Management	On-going
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate	Operational Management	On-going
Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	Operational Management	On-going

Mitigation Measures	Responsibility	Timing / Frequency
Avoid bonfires and burning of waste materials.	Operational Management	On-going
Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.	Builder contractor	Construction Phase
Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.	Builder contractor	Construction Phase
Only remove the cover in small areas during work and not all at once	Builder contractor	Construction Phase
Avoid scabbling (roughening of concrete surfaces) if possible	Operational Management	On-going
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	Operational Management	On-going
Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	Operational Management	On-going
For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust	Operational Management	On-going
Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site.	Operational Management	On-going
Avoid dry sweeping of large areas.	Operational Management	On-going
Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	Operational Management	On-going
Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	Operational Management	On-going
Record all inspections of haul routes and any subsequent action in a site logbook	Operational Management	On-going
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.	Operational Management	On-going
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Site where reasonably practicable).	Operational Management	On-going
Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the Site exit, wherever site size and layout permit.	Operational Management	On-going
Access gates to be located at least 10 m from receptors where possible.	Operational Management	On-going

11.4. Conclusion

The AQIA considered both construction and operational phases, incorporating local meteorological data, background air quality conditions, and dispersion modelling of anticipated emissions.

Construction activities, including demolition, earthworks and vehicle movements, were assessed using a risk-based approach. The assessment identified a medium risk of dust soiling and a low risk of health impacts from earthworks if unmitigated. All other activities, including trackout and traffic, were found to present low to negligible risks. A range of mitigation measures have been proposed to effectively manage construction-related dust emissions.

For the operational phase, emissions of particulate matter (TSP, PM₁₀, PM_{2.5}), nitrogen dioxide (NO₂), metals, and odour were modelled and assessed against relevant NSW EPA air quality criteria. The results confirm that predicted pollutant concentrations are compliant with the applicable standards, with no additional exceedances of PM₁₀ or PM_{2.5} 24-hour criteria. Odour levels were well below the impact threshold of 6.0 odour units.

The Proposal incorporates effective emission control measures, including dust suppression systems and operational enclosures, to ensure air quality impacts remain within acceptable limits.

Based on the outcomes of the AQIA, there are no identified air quality constraints that would preclude the development. The Site is considered suitable for the proposed use with implementation of the recommended mitigation measures.

12. Preliminary Site Investigation

Development Risk Management Pty Ltd (DRM) has prepared a Stage 1 Preliminary Site Investigation (PSI) for the Proposal. The PSI assesses the potential for land contamination based on current and historical land uses and determines the Site's suitability for the proposed industrial development. The PSI was conducted in accordance with relevant NSW EPA guidelines and involved a desktop review, site inspection, and assessment of environmental conditions. A full copy of the Preliminary Site Investigation is provided at Appendix 10.

12.1. Existing Conditions

The Site is predominantly cleared and was previously used for rural/agricultural purposes. During the Site inspection, no residential occupation was observed, and the majority (over 95%) of the surface area was covered with grass, punctuated by 14 dams (including two within the proposed development footprint). Key observations from the PSI include the following:

- A cottage located in the northwestern corner of the Site;
- A shed or vehicle service area was constructed between two shipping containers, located southwest of the cottage;
- Several items of rural infrastructure were present, including a rainwater tank, two underground septic tanks, and a timber power pole;
- A demolition footprint east of the cottage contained widespread rubble, including rubble stockpiles in adjacent areas;
- Internal access roads were surfaced with asphalt or compacted road base;
- Fencing was present along all boundaries and in good condition;
- Intermediate fencing was observed, likely related to previous cattle grazing;
- No chemical storage or hazardous materials were observed at the surface;
- Oil staining was noted on the concrete floor inside the shed/service area;
- Stockpiles of construction and demolition material were present in several locations near the cottage and shed;
- No evidence of fly tipping, illegal waste disposal, or significant environmental degradation was identified; and
- No signs of phytotoxicity were observed in surrounding vegetation.

The inspection noted that the Site appears to have undergone minor earthworks and contains scattered stockpiles, however, no significant contamination indicators were observed. Two areas, originally appearing to be dams, may have been infilled or are simply waterlogged depressions.

12.2. Impact Assessment

12.2.1. Exposure Routes

Table 12.1 provides a summary of the potential exposure routes that have been identified in the PSI.

Table 12.1. Exposure routes.

Exposure Route	Description	Further Assessment
Dermal Contact, Ingestion and Dust Inhalation	Site history information, walkover observations and proposed land use scenario indicated a potential for contaminants to be present in soils at the Site, which may present a dermal contact or ingestion risk or dust inhalation risk to human health	Warranted

Exposure Route	Description	Further Assessment
Vapour Intrusion / Inhalation	Vapour intrusion / inhalation exposure risks to human health can occur when a primary or secondary vapour source is present. Site history information did not indicate a potential for vapour sources to be present at the Site.	Not Warranted
Asbestos Inhalation	Site history information, walkover observations indicate a potential for bonded ACM, FA and/or AF to be present in soils at the Site. The proposed land use scenario is likely to include unsealed and open space areas, where a pathway between identified receptors and asbestos in soils, may be complete.	Warranted
Hazardous ground gases	DRM has reviewed desktop Site history information and Site walkover data in the context of sources and origins of hazardous ground gases (HGG) in Table 1 and Table 2 of NSW EPA (2020a) and consider that there is a potential for naturally occurring HGG to be present in central southeast portions of site, which are likely to comprise of lake and swamp deposits.	Warranted
Aesthetics	DRM has used the guidance in Section 3.6.2 and Section 3.6.3 of NEPC (2013a) to facilitate an assessment of aesthetics risk and the sensitivity of the proposed land use. The risk screening is presented in Appendix D Section D5. The historical records review, observations made during the Site walkover and results of the preliminary risk screening did not identify a potential for unacceptable aesthetics risks to be present on the Site.	Not warranted
Groundwater	Groundwater contamination risks may require consideration if significant and leachable soil contamination is identified. However, the groundwater bore located at the eastern portion of the Site established for domestic purpose.	Not warranted
Terrestrial Ecosystem	Site history information, walkover observations and proposed land use scenario indicated a potential for contaminants, which may present an ecological risk, to be present on site.	Warranted
Petroleum Hydrocarbon Exposure Routes	Site history information and walkover observations did not indicate a potential for petroleum hydrocarbon contamination to be present on site.	Not warranted

12.2.2. Source, Receptor and Pathway Model

A Conceptual Site Model (CSM) provides a summary of Site conditions by identifying potential contamination sources, receptors, and the exposure pathways linking them. The CSM developed by DRM (refer to Table 12.2) is based on the site's Areas of Environmental Concern (AECs), the Contaminants of Potential Concern (COPCs), the identified receptors, and the exposure pathways that are considered either potential or actual. Figure 12.1 provides an overview of the site conditions found during the PSI walkover, and Table 12.2 provides a summary of potential areas of concern.

Table 12.2. Source, Receptor and Pathway Model.

ID	AEC	COPC	Exposure Pathway	Receptor	Potential Unacceptable Risk
AEC01	Potential uncontrolled filling underneath existing structures (cottage, rainwater tank and service shed)	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact, Soil Ingestion, Dust inhalation	Future users, intrusive maintenance workers, ecological (terrestrial) ecosystems	Low Further assessment is not warranted. We note that these structures are to be retained. DRM did not observe visible ACM or lead paint on the surface around the existing structures. Therefore, this AEC is unlikely to pose unacceptable risks to site users. If demolished, this area should be assessed for contamination.
AEC02	Former demolition footprints (Area in east to the cottage and area in east to the overground tank)	Metals, asbestos			Low There is a potential for the former demolition footprints to contain contamination that could pose unacceptable risks to human health and the environment. However DRM understood that any existing demolition rubble on the surface will be removed offsite to facilitate the proposed development. Hence, such contamination (if present) will likely be removed and source of contamination will not be present.
AEC03	Stockpiles with demolition rubble	Hydrocarbons, pesticides, PCB, metals, asbestos			Low There is a potential for the stockpiles with demolition rubble and unknown soil materials to contain contamination that could pose unacceptable risks to human health and the environment. However DRM understands that the existing stockpiles will be removed offsite to facilitate proposed development. Hence, these will not pose unacceptable risks to future site users.
AEC04	Soil mounds	Metals, asbestos			
AEC05	Possible infilled dams (Two dams between cottage and Murrays flat road boundary)	Hydrocarbons, pesticides, metals, asbestos			Low The potential for fill material present in infilled dams (if any) to pose unacceptable risks to human health and the environment is low unless they are to be excavated. If these areas shown on Figure 3 are to be excavated, they should be assessed for contamination.
AEC06	Historical land disturbance		No exposure pathway		Negligible. Based on the aerial image review and Site walkover the land disturbance is likely to associated with creation of a trench between two dams for overflow of dam. Furthermore this area is not in the proposed development area. Further assessment is not warranted

ID	AEC	COPC	Exposure Pathway	Receptor	Potential Unacceptable Risk
AEC07	Two septic tanks at northwest to the cottage	Pathogens, metals, nutrients	Direct Uptake		Negligible Unlikely to pose unacceptable risk. If demolished, this area should be assessed for contamination.
AEC08	Timber power pole with small transformer	Metals, PCB	Dermal contact Soil Ingestion		Low Further assessment is not warranted in the context of the proposed land use. If demolished, this AEC should be assessed for contamination.
AEC09	Effluent irrigation area	Pathogens, metals, nutrients	Dermal contact Soil Ingestion Direct Uptake		Moderate There is a potential for the effluent irrigation area to contain contamination that could pose unacceptable risks to human health. However, the area used of effluent is not known. This area should be identified and isolated from direct contact with future Site users and visitor.
AEC10	Oil spilled area inside the service shed	Hydrocarbons	Direct Uptake Soil Ingestion		Moderate There is a potential for the oil spilled area inside the service shed to contain contamination that could pose unacceptable risks to human health and the environment. This area is required to be remediated and excavated offsite.
AEC11	Hazardous Ground Gases lake and swamp deposits in central southeast portion of the Site	Carbon dioxide, methane and hydrogen sulphide	Gas intrusion into buildings	Site workers	Negligible Given the distance between the lake and swamp deposits and the proposed development (>>30m), which is proposed to be unsealed open space, the potential for HGG to migrate laterally and accumulate under the proposed development footprint is negligible. Further assessment not warranted. However, HGG may require further consideration during future developments if the central southern portion of the Site is proposed to be developed.

Figure 12.1. Site conditions during PSI walkover (source: DRM).

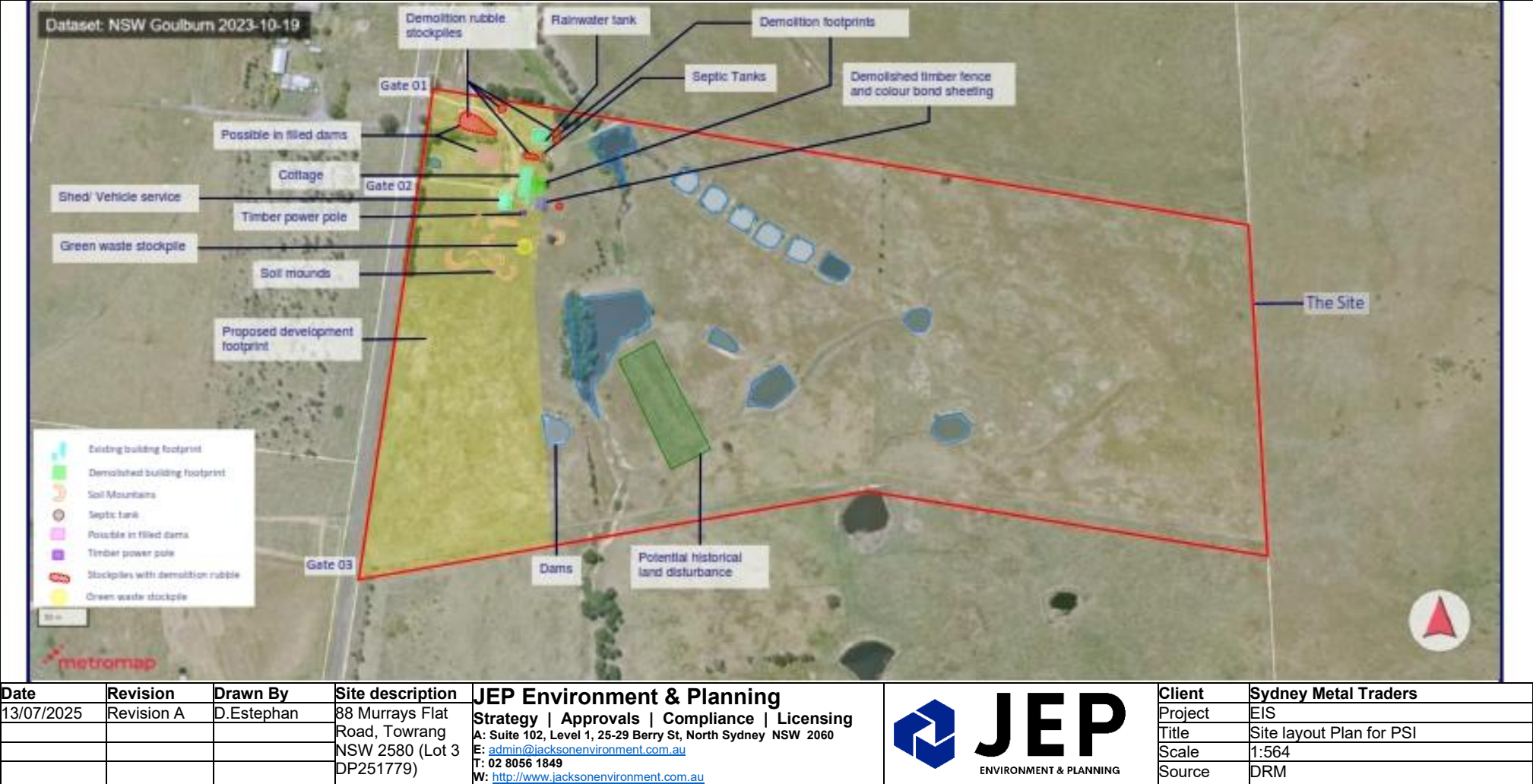
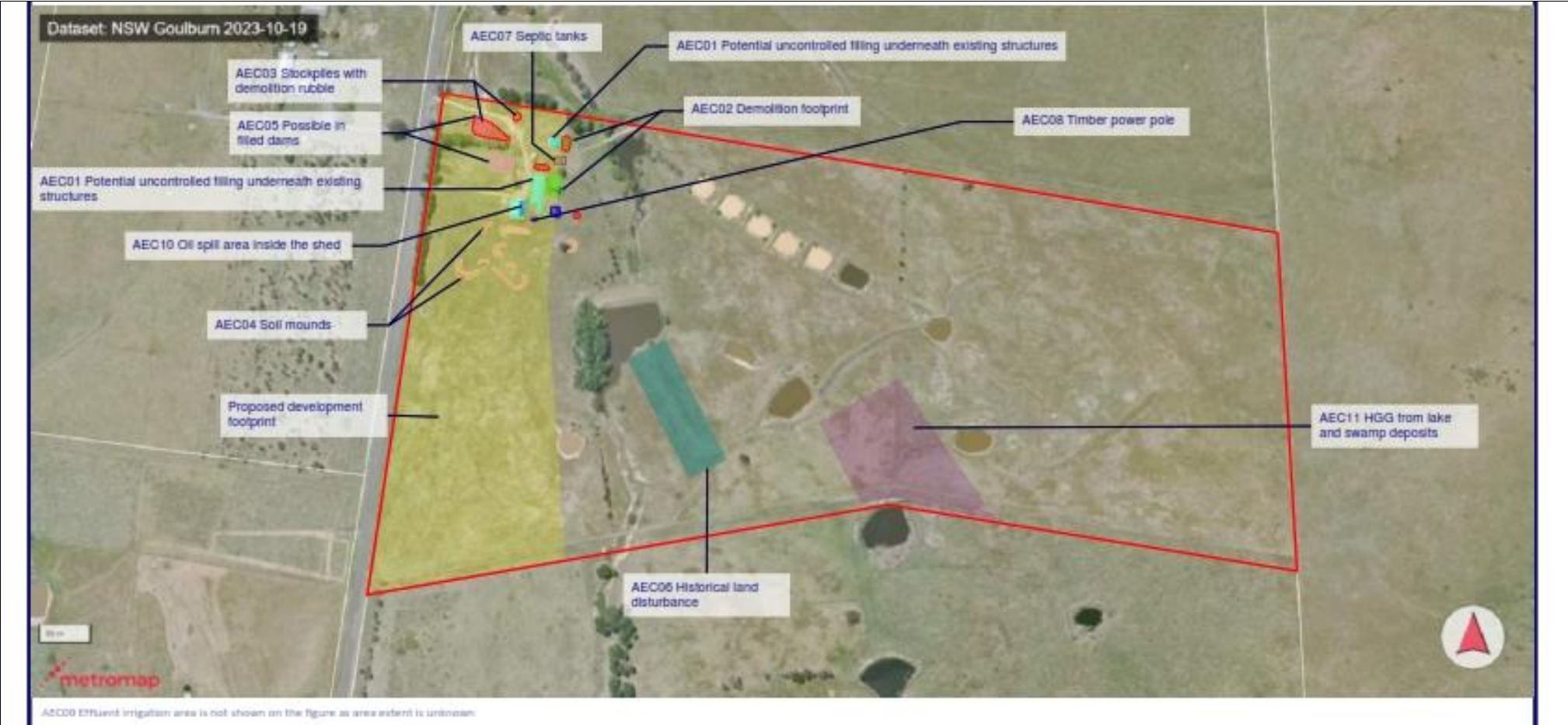


Figure 12.2. Areas of potential environmental concern (source: DRM).



Date	Revision	Drawn By	Site description	JEP Environment & Planning	Client	Sydney Metal Traders
13/07/2025	Revision A	D.Estephan	88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP251779)	Strategy Approvals Compliance Licensing A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	Project	EIS
					Title	Areas of Environmental Concern
					Scale	1:564
					Source	DRM

12.2.3. Potential for Contamination

Based on a desktop review and Site inspection, the potential for widespread, unacceptable contamination across the Site to be low, particularly in the context of the proposed industrial use. However, the possibility of encountering isolated pockets of contamination during construction works cannot be ruled out. Any such unexpected contamination should be managed in accordance with an unexpected finds protocol. There is a potential for uncontrolled fill to exist beneath existing structures. While this fill is not expected to pose an unacceptable risk under current Site conditions given that the structures are to be retained further assessment would be required should these structures be demolished in the future.

Similarly, infilled dams are not anticipated to present a contamination risk unless excavation occurs. If excavation is proposed, targeted contamination assessment should be undertaken at that time. A stockpile of waste and demolition rubble, as well as a soil mound, are proposed to be removed from the Site. As a result, any contaminants potentially associated with these materials will be removed, significantly reducing any contamination risk. The location of a historic effluent irrigation area is currently unknown. However, provided that direct contact with future Site users and workers can be avoided, the associated contamination risk is considered low in the context of the proposed land use. A moderate risk of contamination has been identified in surface soils within and adjacent to the existing service shed, where visible oil staining is present. This area will require remediation and offsite disposal of the impacted soil prior to construction. No further contamination assessment is deemed necessary at this stage.

The Site is considered suitable for the proposed industrial development, subject to the following actions:

- Remediation and offsite disposal of oil-impacted soils within the service shed; and
- Removal and validation of the stockpiled soil and waste material.

12.3. Mitigation Measures

Table 12.3 provides the PSI mitigation measure recommendations to be included in implementation of the Proposal.

Table 12.3. Mitigation measures to mitigate potential contamination risks.

Item	Measure
1.	The potential for significant unacceptable contamination to be present at the Site is low. However, the potential for isolated pockets of contamination to be encountered during the proposed earthworks cannot be precluded, and such instances should be managed in accordance with an unexpected finds protocol; and
2.	The Site is suitable for the proposed industrial/commercial land use, from a contamination perspective, subject to: • Remediation and offsite disposal of the oil spilled area inside the service shed; and • Removal of the stockpiled soil and waste material and validation of the footprint.
3.	DRM recommends that the oil spilled area is to be remediated and excavated for offsite disposal. A validation report is to be prepared by a suitably qualified environmental consultant. This report should also include results of the validation of stockpile footprints.

12.4. Conclusion

The PSI concluded that the Site is suitable for the proposed industrial development from a contamination perspective. No widespread contamination was identified, although isolated areas such as oil-impacted soils within the service shed require remediation. The removal of stockpiled waste and demolition rubble will further reduce any potential contamination risks. Subject to the implementation of the recommended mitigation measures, including remediation and management under an unexpected finds protocol, no further contamination assessment is required at this stage.

13. Waste Management Plan

The Waste Management Plan (WMP) has been prepared by JEP Environment & Planning. A brief summary of the plan is provided in this Section. The full Waste Minimisation and Management Plan is provided as Appendix 11. A WMP was a requirement under SEARS, which outlined the necessary information to be included, which are:

- Details of the type, quantity and classification of waste to be received at the Site;
- Details of the resource outputs and any additional processes for residual waste;
- Details of waste handling including transport, identification, receipt, stockpiling and quality control; and
- The measures that would be implemented to ensure that the Proposal is consistent with the aims, objectives and guidelines in the *NSW Waste Avoidance and Sustainable Materials Strategy 2041*.

Waste management practices outlined below address the environmental and human health safety requirements during the operational phase. These improved waste management practices realise the triple bottom line benefits including financial efficiencies, sustainable construction methods and a safe work site for the duration of the construction process.

These positive outcomes will be achieved through thorough planning and procurement of exacting measurements reducing upfront costs of construction and preventing the generation of waste.

The benefits of the management practices outlined in the plans will be realised from the outset by both the business and the broader community in the form of reduced costs of disposal, reduced costs of legal liability and common good through:

- Maximising recovery of valuable resources;
- Exercising due diligence for safe disposal of waste; and
- Providing a safe worksite.

13.1. Methodology

The Waste Minimisation and Management Plan was compiled using the following steps:

- Estimate waste stream types and amounts based on the site activities – for operations phase;
- Identify management options for each waste stream suitable within the regulatory framework; and
- Select most appropriate waste management option for the building wastes and garden organics stream, aiming to recover as much resource as possible.

13.2. Existing Condition

The Site currently contains an existing residential building, which is proposed to be repurposed for use as administrative offices. However, beside the dwelling a large portion of the house is landscaping.

13.3. Impacts Assessment

13.3.1. Demolition Phase

The development phase of the project does not involve the demolition of any built structures on the Site.

13.3.2. Construction Phase

The construction period for the proposed development is expected to span approximately six months following receipt of development consent. The works will be undertaken in the following three stages, each generating specific types and volumes of construction waste. The stages includes:

- Stage 1 - Site mobilisation;

- Stage 2 - Site Preparation Activities;
- Stage 3 - Bulk Earthworks, Drainage & Hardstand Construction Activities;
- Stage 4 - Conversion of Residential Building to Administration Offices Activities; and
- Stage 5 – Intersection upgrades works.

As part of the overall development, various supporting infrastructure components will also be constructed. These include:

- Three sediment basins and a 1,000 m² biofiltration basin to manage and treat stormwater runoff;
- A 300 m² effluent disposal area to support on-site wastewater management;
- A self-bunded fuel storage tank (50,000L capacity) installed on a bunded concrete pad, with an underground 10,000L spill containment tank;
- A 20-metre-wide landscaped setback along the Site boundary and 4-metre-high acoustic walls to reduce visual and noise impacts;
- Internal roadways formed with compacted road base, designed for the safe movement of heavy vehicles (including B-Double and HRV trucks);
- A weighbridge system to support incoming and outgoing material tracking;
- A gatehouse for Site access control and logistics management;
- Designated staff and visitor parking areas;
- Retained existing dams for potential stormwater reuse or emergency supply; and
- Construction of key operational buildings and infrastructure, including a shredder shed, workshop and amenities, storage shed and depollution bay, hammer mill and cyclone plant, and the conversion of an existing residential building into administration offices.

These components are integral to the long-term functioning of the metal recycling facility and will be constructed progressively throughout the nominated construction stages.

The waste streams generated on Site during the construction phase are summarised in Table 13.1 below. Concrete, timber, metal, soil, and plastics will be generated during Site preparation, bulk earthworks, and the conversion of the existing residential building to administrative use. These materials will be appropriately segregated on Site to maximise recovery, stored in separate hook lift bins, and transported off-site for recycling or lawful disposal at the Goulburn Waste Management Centre or other licensed local facilities.

Table 13.1. Construction Phase recycling.

Waste Type	Waste Identified	Waste Description	Reuse/recycling/ Disposal Method	Suggested Receiving Facility	Estimated Tonnes	Recycling rate
General Solid Waste (non-putrescible)	Soil	Soil removed under pavement for stormwater drainage upgrade, spill containment and footings. Removal of Vegetation and Site levelling	On-site recycling	Beneficially reused under a VENM Certificate or the EPA's Excavated Natural Material Resource Recovery Order 2014	54,602	100%
	Construction waste – “heavy”	Asphalt, concrete from the installation of foundations and services	Off-site recycling	Goulburn Waste Management Centre	7.5	90%

Waste Type	Waste Identified	Waste Description	Reuse/recycling/ Disposal Method	Suggested Receiving Facility	Estimated Tonnes	Recycling rate
	Construction waste - metal	Ferrous metal off-cuts	Off-site recycling	Goulburn Waste Management Centre	2.5	100%
	Construction waste – “light”	Timber, packaging, glass, plastic, rubber, plasterboard, and ceramics	Off-site recycling/ disposal	Goulburn Waste Management Centre	3.5	40%
	Grit, sediment, litter and gross pollutants	Collected in, and removed from, stormwater treatment devices and/or stormwater management systems	On-site recycling	Goulburn Waste Management Centre	10.5	100%
	Site office waste	Paper, cardboard and co-mingled recycling.	Off-site recycling	Goulburn Waste Management Centre	0.75	100%
Hazardous	Waste oils, fuels, lubricants and chemicals	Waste oils and containers that previously contained Class 1, 3, 4, 5 or 8 substances used for construction plant	Off-site recycling / disposal	Goulburn Waste Management Centre	0.75	0%
General Solid Waste (putrescible)	Site office waste	Generated from worker's lunches.	On-site recycling	Goulburn Waste Management Centre	0.75	0%
TOTAL Amount of waste generated (tonnes)						54,627
TOTAL Amount of waste recycled (tonnes)						54,623
Overall recycling rate						99.99%

The overall waste recovery rate during construction is estimated to exceed 99.9%. All waste handling will be undertaken in accordance with relevant environmental legislation and EPA requirements, supporting responsible resource recovery and minimising environmental impact.

13.3.3. Operational Phase

The Site will receive up to 30,000 tonnes per year of scrap metal for sorting and processing. All incoming vehicles will first pass over the inbound weighbridge located at the entrance to the Site. This weighbridge is positioned prior to the main operational area to ensure all loads are recorded before proceeding further. Once weighed, vehicles will move to the gatehouse, where loads will be visually assessed and directed to the appropriate unloading area depending on the type and source of material. Based on the calculated stockpile capacities, the total maximum volume of metals that can be stored on site at any point in time is 16,580 m³ and the maximum tonnage of metals that can be stored at any point in time is 14,354 tonnes.

The approximate maximum volume and tonnages for each stockpile is provided in Table 13. 2.

Table. 13.2. Maximum volume and tonnage for each stockpile.

Stockpiling Area	Types of materials to be received and processed	Source	Waste classification	Maximum volume of metals stored in each area (m ³)	Area of stockpile (m ²)	Length of stockpile (m)	Width of stockpile (m)	Height of stockpile (m)	Bulk Density (Tonnage / m ³)	Maximum amount of each stockpile (tonnes)
Unprocessed Metal Area 1 Zone A	Unprocessed Small Sized / Undersized	Businesses	General solid waste (non-putrescible)	1,600		20	20	4	0.5	800
Unprocessed Metal Area 1 Zone C	Unprocessed Small Sized / Undersized	Businesses	General solid waste (non-putrescible)	1,600		20	20	4	0.5	800
Unprocessed Metal Area 1 Zone C	Unprocessed Small Sized / Undersized	Businesses	General solid waste (non-putrescible)	1,600		20	20	4	0.5	800
Unprocessed Metal Area 1 Zone C	Unprocessed Small Sized / Undersized	Businesses	General solid waste (non-putrescible)	1,600		20	20	4	0.5	800
Unprocessed Metal Area 2 Zone B	Unprocessed Large Sized / Oversized	Businesses	General solid waste (non-putrescible)	1,600		20	20	4	1.1	1,760
Unprocessed Metal Area 2 Zone C	Unprocessed Large Sized / Oversized	Businesses	General solid waste (non-putrescible)	1,600		20	20	4	1.1	1,760
Processed Metal Stockpile sheared/shredded #1 Zone A	Sheared/shredded (fixed shearer / oxy cutting (structural steel)	Businesses	General solid waste (non-putrescible)	2,396	599	variable	variable	4	1.1	2,636
Processed Metal Stockpile sheared/shredded #2 Zone C	Sheared/shredded (Shredding zone - ferrous and post shredder processing)	Businesses	General solid waste (non-putrescible)	4,524	1,131	variable	variable	4	1.1	4,976
Processed Metal Stockpile Recovery Bases	Stainless Steel (SUS)	Businesses	General solid waste (non-putrescible)	10			2.5	4	0.5	5

Stockpiling Area	Types of materials to be received and processed	Source	Waste classification	Maximum volume of metals stored in each area (m³)	Area of stockpile (m²)	Length of stockpile (m)	Width of stockpile (m)	Height of stockpile (m)	Bulk Density (Tonnage / m³)	Maximum amount of each stockpile (tonnes)
	Copper and Aluminium (Cu/Al)	Businesses	General solid waste (non-putrescible)	10			2.5	4	0.2	2
	Wire	Businesses	General solid waste (non-putrescible)	10			2.5	4	0.5	5
	15-120mm Plastic	Businesses	General solid waste (non-putrescible)	10			2.5	4	0.3	3
	Ferrous iron (Fe Iron)	Businesses	General solid waste (non-putrescible)	10			2.5	4	0.5	5
	Floc/fluff	Businesses	General solid waste (non-putrescible)	10			2.5	4	0.2	2
TOTALS				16,580						14,354
Maximum volume of metals that can be stored on Site at any point in time (m³)				16,580						
Maximum tonnage of metals that can be stored on Site at any point in time (tonnes)				14,354						

The office operations associated with Sydney Metal Traders operations will generate waste from office administration and staff lunch activities. Whilst waste generation from these activities are considered minor, they need to be appropriately managed to ensure that waste is minimum and recycled. The operation will generate minimal waste as part of the Site office operations. However, a full co-mingled recycling system will be introduced into the office. Co-mingled recycling and general waste will be stored in separate bins in the waste storage area. An overview of waste generation and recycling estimates as part of the office operations is provided in Table 13.3.

Table 13.3. Office waste generation and recycling.

Key Waste Stream	Waste Generation per day per 100m ² floor area (for offices) (m ³)	Weekly waste generation (based on a 6 day working week and office floor area of 60m ²) (m ³)	Bulk density (t/m ³)*	Estimated tonnages per year (tonnes)	Segregation Areas / Containers	Reuse / Recycling / Disposal Method	Waste Type (NSW EPA Pre-classified Waste)	Suggest Receiving Facility	Recycling Rate (%)
Co-mingled recycling: plastic / glass containers / metal cans / paper and cardboard	0.006	0.3438	0.2	3.58	1 x 240 L and 1x 120L wheelie recycling bin (emptied weekly or as needed)	Off-site recycling	General waste (non-putrescible)	Goulburn Waste Management Centre	100%
General waste (residual waste)	0.008	0.4584	0.087	2.07	2 x 240 L wheelie 'red' bin (emptied weekly or as needed)	Off-site recycling/ disposal	General waste (non-putrescible)	Goulburn Waste Management Centre	39%
Food and Garden Organics (FOGO)	0.005	0.2865	0.343	5.11	1 x 240 L wheelie recycling 'green' bin (emptied weekly or as needed)	Off-site recycling	Green waste (putrescible)	Goulburn Waste Management Centre	100%
TOTAL Amount of waste generated (tonnes)				10.76					
TOTAL Amount of waste recycled (tonnes)				9.49					
Overall recycling rate				88.2%					

13.3.4. Non- conforming waste materials

Non-ferrous metals will be stored in a designated bay, while floc will be retained in a sealed containment area to minimise environmental impact. Shredder floc is a by-product of scrap metal recycling. Shredder floc can consist of bits of plastic, rubber, textiles, metals, dirt and glass. Floc will be contained in a sealed bunker, or floc bay, as the material can be contaminated with heavy metals, oils and hydrocarbons.

Table 13.4 Average shredder floc composition.

Material type	Average composition range (% weight)
Plastics	35 – 55%
Rubber	10 – 20%
Metals	6 – 13%
Textiles	7 – 15%

Floc is discharged via a covered conveyor into a separate covered and contained 25-30m³ skip or hook bin (10 tonne capacity) within a designated concrete block bunker. This will minimise any discharge of oil, grease and other potential pollutants to the Site's stormwater pit. Floc will comprise an estimated 20 to 30% of the input stream. Floc will be regularly transported to a licensed facility that can accept this waste.

13.3.5. Environmental Risk Assessment

A risk assessment has been undertaken to identify the level of risk that operational activities may present to waste management.

The following points summarise the key activities identified in the risk assessment relevant to waste management for operation of the Facility:

- Litter (e.g. food waste, packaging) from site amenities reaching local waterways;
- Dust from crumb rubber production leaving the Site;
- Leakage of vehicles during loading and unloading;
- Fuel and oil spills during operational plant and equipment maintenance; and
- The location and storage of waste on site prior to reuse or disposal.

13.4. Mitigation Measures

A Waste Management Plan has been prepared to guide how waste will be dealt with in the most environmentally sustainable way. Waste management and mitigation measures, additional to those proposed in the WMP, which will be implemented at the Facility are outlined in Table 13.5

Table 13.5. Waste Management and Mitigation Measures.

Mitigation Measures	Responsibility	Timing / Frequency
The Site will not receive or process on the Site more than 30,000 tonnes of waste per calendar year.	Operations Management	On-going
Waste management and minimisation will form part of the induction program (which includes environmental due diligence training). All Project and Site personnel will be trained in the requirements of this document including minimising wastes, recognising which types of materials are recyclable and their obligations to use recycling facilities provided on site.	Operations Manager	Prior to starting on Site / Ongoing
Clearly assign and communicate responsibilities to ensure that those involved in the construction are aware of their responsibilities in relation to the waste management plan	Operations Manager	Prior to starting on Site / Ongoing

Mitigation Measures	Responsibility	Timing / Frequency
Engage and educate personnel on how the various elements of the waste management plan will be implemented	Operations Manager	Prior to starting on Site / Ongoing
Specific locations for waste management (e.g. recycling bin locations, material stockpile locations) will be established on Site and signposted appropriately.	Operations Manager	Weekly checks
Waste management areas will be adequately managed to prevent sediment runoff and dust generation.	Operations Manager	Daily
Construction Method Statements (CMS) will include practices to minimise waste generation and to maximise recycling and reuse of materials including oils, greases, lubricants, timber, glass, and metal.	Operations Manager	Prior to start of construction and ongoing
Packaging minimisation and reuse initiatives will be implemented as part of the procurement.	Operations Manager	Ongoing
Spill kit to be present on Site in the case of any fuel leaks of plant and equipment during the construction phase of the development	Operations Manager	Prior to start of construction
Segregated waste disposal containers for the collection and recycling/disposal of all waste streams generated during the construction and operation phases will be provided onsite. Waste disposal containers will have clear signage and instructions for use to avoid cross-contamination. No rubbish shall be disposed of on site.	Operations Manager	Daily
Waste will be disposed to an appropriate licensed facility.	Operations Manager	Daily
All waste being transported off site must be covered. The transportation must be appropriately licensed to carry that material.	Operations Manager	Daily
Incompatible wastes will not be mixed.	Operations Manager	Daily
Storage areas would be located away from waterways and the stormwater system.	Operations Manager	Daily
Biodegradable products will be used wherever practicable.	Operations Manager	Daily
Regular collection of wastes will ensure air emissions are at a satisfactory level. Inappropriate waste and wastewater management systems will be regularly inspected and audited.	Operations Manager	Daily
Conduct regular litter patrols to ensure litter is effectively controlled on site.	Operations Manager	Daily

13.5. Conclusion

The Waste Management Plan confirms that appropriate procedures and infrastructure will be implemented to manage all waste generated during both the construction and operational phases of the proposed development. Waste generation will be minimised through careful planning, segregation, and recycling, with a strong emphasis on compliance with EPA guidelines and the NSW Waste Avoidance and Resource Recovery Strategy. The plan demonstrates a high recycling rate of over 99% during construction and 88% during operation, supported by clearly defined waste handling processes and mitigation measures. The Site is well-equipped to safely manage general,

hazardous, and non-conforming waste streams, including shredder floc, in a manner that protects the environment and ensures sustainable resource recovery outcomes.

14. Fire Safety Study

A Fire Safety Study (FSS) has been prepared by Riskcon in accordance with Hazardous Industry Planning Advisory Paper (HIPAP) No. 2 – Fire Safety Study Guidelines and the Fire and Rescue NSW (FRNSW) Fire Safety in Waste Facilities Guideline. The purpose of the FSS is to identify potential fire risks associated with the proposed operations at the Sydney Metal Traders facility located at 88 Murrays Flat Road, Towrang NSW 2580, and to assess the adequacy of fire detection, prevention, protection, and mitigation measures proposed for the Site.

The FSS evaluates plausible fire scenarios and determines whether the design and proposed management measures are sufficient to minimise risk to life, property, and the environment. Where additional improvements were identified, these are presented as recommendations. A full copy of the FSS is provided in Appendix 12.

14.1. Existing Condition

The proposed development will repurpose an existing dwelling into administration and staff amenities and construct new buildings to support metal recycling operations. The Site is mapped as Vegetation category 3 bushfire-prone land.

14.2. Impacts Assessment

The FSS identified a range of potential fire scenarios for assessment, including:

- Ignition of combustible waste within stockpiles;
- Ignition of shredder floc within bins;
- Ignition during shredding operations;
- Storage of non-combustible waste;
- Fires producing toxic combustion by-products and community impacts;
- Application of contaminated fire water; and
- Incidents involving the onsite diesel storage tank.

14.2.1. Ignition of Combustible Waste within Stockpiles

Mixed scrap metal received onsite is sorted into several stockpiles of varying size. Although predominantly non-combustible, some materials such as plastics in appliances may pose a fire risk. Stockpiles are separated to minimise propagation in the event of ignition. Pre-shredded piles may contain ignition sources such as batteries, which can initiate a fire resulting in radiant heat and toxic smoke. Post-shredded materials have a lower combustible content, as floc materials are segregated and stored separately.

Radiant heat from potential stockpile fires is expected to generate temperatures below 1,000°C, representing an ordinary fire risk per the FRNSW Guideline. To mitigate propagation, stockpile dimensions will adhere to FRNSW requirements (20 m x 20 m x 4 m), with separation distances of at least 8 m between piles. Although slightly less than the 10 m guideline, the low combustible content is considered to provide adequate protection. Hydrant coverage will be provided to enable brigade access, ensuring hydrants are not located within 10 m of any pile. It is recommended to provide smoke or thermal fire detection systems to alert of stockpile fires when the Site is unattended. As well as equip mobile plant with portable extinguishers for first-response firefighting where safe to do so and provide hydrant coverage for the unprocessed mixed metal stockpiles, ensuring hydrants are not within 10 m of the pile.

14.2.2. Ignition of Shredder Floc within Bin

Shredder floc containing combustible fragments (plastics, rubber) is collected in a 10 m³ bin located outside the shredder shed. Although below the 50 m³ FRNSW threshold, floc could ignite under extreme conditions such as during hot works. Hot work procedures and permits will be enforced to prevent ignition. Given the small volume,

limited ignition sources, and location away from other combustibles, the likelihood of a significant fire is low. Brigade access via hydrants will enable rapid response if required.

14.2.3. Ignition During Shredding

Metal shredding operations may cause localized ignition (e.g., from short-circuited batteries). These incidents are expected to be minor and manageable by trained personnel using extinguishers or hose reels installed per BCA requirements. Brigade intervention may be required only in rare cases, with hydrant coverage provided as per AS 2419.1.

14.2.4. Storage of Non-Combustible Waste

The majority of materials (e.g., aluminium, stainless steel, copper, lead) are non-combustible and therefore pose negligible fire risk.

14.2.5. Fire Producing Toxic By-Products of Combustion

Combustion of residual plastics may release toxic gases; however, the low combustible content of stockpiles limits this risk. Stockpile size restrictions and separation distances will ensure efficient combustion if fire occurs, reducing smoke toxicity and dispersion impacts on the surrounding community.

14.2.6. Application of Fire Water and Environmental Contamination

Runoff from firefighting activities could contain contaminants. Fire water will be directed to the stormwater detention dam for containment and testing prior to discharge. The dam is fitted with isolation valves allowing containment during fire events. It is recommended that the assess feasibility for automatic closure of isolation valves upon fire alarm activation. As well as test isolation valves every six (6) months to prevent seizure.

14.2.7. Incident Related to Diesel Tank

The Site includes a 50 kL above-ground diesel tank and bowser located on a bunded hardstand in compliance with AS 1940:2017. Diesel, being a C1 combustible liquid with a high flash point ($>63^{\circ}\text{C}$), presents low ignition risk. The bowser is fitted with isolation controls and drip trays. Fire risk is primarily limited to refuelling activities; however, the likelihood of ignition remains low given the fuel properties and design controls.

14.2.8. External Fire Impacts

The Site is not bushfire-prone and is surrounded by limited vegetation. While grass fires are possible, they are unlikely to sustain sufficient radiant heat to impact onsite operations or storage areas. As such, the external fire risk is considered low.

14.2.9. Local Brigade Access and Egress

An indicative assessment of fire brigade intervention has been undertaken based on the methods defined in the Fire Brigade Intervention Model. With a brigade call out time of 462 seconds fire brigade can be expected to arrive on site 752 seconds after fire ignition.

The Model indicates that the arrival times of the brigade from the nearest fire station is approximately 12 minutes after fire ignition, and it is estimated that it takes another 2 minutes for the fire brigade to carry out activities including the determination of fire location and preparation of firefighting equipment. As such, the initial attack on the fire is expected to commence approximately 14 minutes after fire ignition.

14.2.10. Fire Water Supply & Contaminated Fire Water Retention

Section 7.5 of the FRNSW Fire Safety in Waste Facilities Guideline (the Guideline) provides guidance around hydrant requirements as a function of open yard area used for stockpiles of combustible wastes, hence it has been applied here. There are five stockpiles containing unprocessed mixed metals which may contain varying levels of combustible materials, each occupying 400 m^2 of ground area totalling $2,000\text{ m}^2$. The Guideline prescribes two hydrants are required to flow simultaneously for areas less than $3,000\text{ m}^2$, hence this is the requirement.

The fire hydrant system is to have a minimum water supply of 4 hours, hence, at 10 L/s per hydrant, the required supply capacity is 288 m^3 for two (2) hydrants.

Conservatively assuming the full 288 m³ firewater supply is used would result in 288 m³ of containment capacity within the stormwater retention dam to prevent this leaving offsite. This is in accordance with Clause 7.9.2 of the Guideline. There are four retention basins for sedimentation and biofiltration prior to discharge from the site which will be used for contaminated water retention. The combined containment capacity provided by these basins is 5,330 m³. which well exceeds this requirement. Therefore, the sufficient contaminated water retention capacity is provided.

14.3. Mitigation Measures

Environmental controls listed in Table 14.1. will be implemented to minimise the risk and consequences of fire at the Facility.

Table 14.1. Mitigation Measures for Fire Safety.

Item	Mitigation Measures
1	Ensure a means of smoke or fire detection within stockpiles is provided for when personnel are not on site, such as with thermal cameras.
2	Consider providing portable fire extinguishers to mobile plant involved with managing the stockpiles.
3	Provide hydrant coverage for the unprocessed mixed metal stockpiles, ensuring hydrants are not within 10 m of the pile.
4	The potential for the isolation valves to be automatically closed upon fire detection (i.e. alarm) shall be considered.
5	Isolation valves shall be tested every six (6) months to ensure the valves do not seize and become stuck in the open position.
6	A site emergency response plan and emergency services information booklet shall be prepared for the Site to fully document the emergency scenarios and the appropriate responses to those emergency scenarios.
7	Dry powder extinguishers shall be readily accessible from waste storages to provide quick response by site personnel in the event of a fire.
8	Operators shall be trained in the use of site fire extinguishers
9	A detailed pressure loss calculation shall be prepared for the most disadvantaged hydrant to demonstrate compliance with AS 2419.1-2017.
10	A fire equipment layout drawing shall be prepared for the Site by a competent person, indicating all fire controls (extinguishers, hydrants, hose reels, etc.).
11	Provide 288 m ³ water supply for firefighting purposes in the supply tanks.

14.4. Conclusion

The Fire Safety Study confirms that the proposed development incorporates appropriate fire prevention, detection, and response systems consistent with the HIPAP No. 2 and FRNSW *Fire Safety in Waste Facilities* Guideline. With implementation of the recommended measures, the potential fire risks associated with the operation are considered low and manageable. The proposed design provides suitable infrastructure and operational controls to ensure that the risk to people, property, and the environment remains acceptable.

15. Bushfire Assessment

SOWDES has prepared a Bushfire Risk Management and Assessment (BRMA) to support the Proposal. A copy of the full Bushfire Risk Management and Assessment is provided at Appendix 13.

15.1. Existing Conditions

All existing and proposed structures are classified as non-habitable buildings under the National Construction Code (NCC), and as such, specific bushfire performance requirements are not triggered.

The development property is located in an un-serviced area on the northeastern outskirts of the city of Goulburn with access to Murrays Flat Road being via a T-intersection off the north bound

The entire site and surrounding areas are mapped as 'Category 3' (medium risk) bush fire prone land.

15.2. Impacts Assessment

Key bushfire risk considerations including access, emergency response, and water supply, in line with the objectives of *Planning for Bush Fire Protection 2019* (PBP 2019), have been incorporated into the design of the development.

The Proposal will involve the use of hot cutting equipment, which poses the most significant bushfire ignition risk on-site. To mitigate this, a non-combustible wall (1.8 m high) will be constructed around the cutting bay, which will be located at least 15 metres from surrounding vegetation and set on a concrete slab. A dedicated yard tap and hose will be positioned adjacent to the cutting bay, along with appropriate fire extinguishers.

A weather station will be permanently installed near the hot works area to monitor site-specific conditions. Use of hot cutting equipment will be prohibited during days classified as 'Extreme' or 'Catastrophic' fire danger ratings, or where temperatures exceed 30°C, humidity falls below 20%, and wind speeds exceed 30 km/h, unless expressly approved by the NSW Rural Fire Service.

Rainwater runoff from the workshop and associated structures will be captured in a minimum 150,000-litre water tank. While primarily intended for dust suppression, the tank will include fittings suitable for firefighting use. Solar panels on the roofs will feed a battery storage unit housed within a ventilated, non-combustible enclosure.

Following identification of assets at risk and their respective consequence ratings, priority actions have been assigned to key elements of the development to mitigate bushfire impacts. These priorities reflect the landowner's approach to risk acceptance, preparedness, and responsiveness.

Bushfire awareness training, operational protocols, and site-wide management strategies will enable staff and the landowner to respond to most bushfire events without external assistance. However, predetermined evacuation triggers based on weather and fire danger conditions will override operational efforts where conditions exceed safe thresholds. Recognised critical assets, including the administration building and main workshop, have been allocated a high priority due to their use as places of refuge and their operational importance.

15.2.1. Human Occupancy

Although the Site is not intended for residential use, operational staff will be present during working hours. In a bushfire scenario, there is potential for minor injuries related to smoke inhalation or burns, particularly given the rapid onset of such events. Nevertheless, with adequate training, awareness, and access to a designated refuge within the workshop, the overall consequence to human life is considered low.

15.2.2. Built Asset

There is a realistic risk of both minor and major losses to on-site infrastructure, including the administration building and processing sheds, which are critical to operations. Damage to essential services such as water and power supply may also occur. Consequently, the risk to built assets is considered high.

15.2.3. Economic

Losses associated with infrastructure damage could impose a moderate economic burden, particularly in terms of replacing key equipment and buildings. However, these are manageable, and operations are likely to resume with short-term disruptions. The economic consequence is assessed as medium.

In addition, precautionary closure of the facility during heightened fire danger periods may result in lost productivity. Although wages may continue to be paid during these closures, staff are expected to recover this time post-event, resulting in a low economic impact.

15.2.4. Environment

There are no ecologically sensitive areas within the development site likely to be adversely affected by a bushfire. As such, the environmental consequence is rated very low.

15.2.5. Cultural

There are no identified Aboriginal or historic heritage items within the Site boundaries. Therefore, the potential bushfire impact on cultural values is considered very low.

15.2.6. Bush Fire Emergency Management Plan

A Bush Fire Emergency Management Plan (BEMP) has been prepared and included as Appendix C of the BRMA (see Appendix 13). The BEMP documents protocols related to the awareness, preparedness, and safe operating procedures for the owners, managers, staff, and visitors to potentially vulnerable facilities or locations to adequately manage the safe evacuation, and the protection of property and assets at risk from a bush fire event.

The BEMP also documents the evacuation procedures and recovery strategies specific to the entity and should be made known and practiced by all persons having responsibility for, or participation in the operation of the facility.

15.3. Mitigation Measures

A suite of mitigation measures has been proposed to reduce bushfire risk and improve operational preparedness at the proposed development. Table 15.2 outlines key actions to be implemented as part of bushfire risk management for the Site.

Table 15.2. Bushfire Mitigation Measures.

Item	Measure
1.	Reduce and maintain vegetation hazards around all publicly accessible areas and along designated access and egress routes, with specific attention to the administration building, staff amenities, and the main workshop.
2.	Establish clear administrative procedures that define a hierarchy of responsibility for the implementation of treatment measures and decision-making during bushfire events.
3.	Develop emergency procedures including defined evacuation triggers, nominated assembly and refuge points, and coordination protocols with firefighting and emergency services.
4.	The Bushfire Risk Management Plan (BRMP) will undergo internal draft review and ratification prior to implementation. This process will clarify its objectives and ensure it becomes a practical operational tool. The finalised plan will guide the landowner in identifying needs and selecting appropriate response strategies.
5.	Following finalisation of the BRMP, the landowner will consult with local firefighting agencies to discuss the plan's context, content, and implementation. The BRMP will be adopted prior to practical commencement of the recycling facility. Immediate and low-resource mitigation actions will be prioritised for early completion.
6.	The BRMP will be reviewed annually to verify that scheduled works have been completed or are planned ahead of the bushfire season. The review will also assess changes in management personnel and update decision-making protocols to ensure site preparedness during emergencies.
7.	A structured monitoring program will be maintained to evaluate such as; • The effectiveness of previous specific treatment measures; • Identification of risk mitigation and / or treatment measures outstanding to be completed; • Identification of any new risks or hazards and treatment options; • Any bush fire training and / or evacuation drills; and

Item	Measure
	Communications with the relevant firefighting, emergency, and support agencies.

15.4. Conclusion

The BRMA confirms that the Proposal is unlikely to present significant bushfire risk, given the non-habitable classification of all structures and the incorporation of key design and operational safeguards. While the use of hot works equipment presents a potential ignition source, appropriate site-specific controls such as non-combustible enclosures, operational restrictions during adverse weather conditions, and on-site fire suppression infrastructure are proposed to mitigate this risk.

The Facility has been designed to ensure safe egress, provision of emergency refuge, and a reliable water supply for firefighting purposes. The implementation of a Bushfire Risk Management Plan, including annual reviews and staff training, will ensure the Site remains prepared and responsive to bushfire threats. A Bush Fire Emergency Management Plan (BEMP) has been prepared and will be implemented for the Proposal.

Overall, the development is considered to present a manageable bushfire risk with no significant impacts anticipated, subject to the proposed mitigation measures being implemented.

16. Aboriginal Heritage Assessment

Artefact Heritage has prepared an Aboriginal Heritage Due Diligence Assessment (Due Diligence) for the Proposal to satisfy the requirements of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010). The Due Diligence was commissioned at the request of Goulburn Mulwaree Council to determine whether the proposed development may affect Aboriginal heritage values or require further archaeological investigation.

The Due Diligence was prepared in accordance with the *National Parks and Wildlife Act 1974 (NPW Act)*, which provides statutory protection for Aboriginal objects and places of cultural significance, and was also informed by relevant provisions under the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. The methodology included:

- A search of the Aboriginal Heritage Information Management System (AHIMS) undertaken on 19 October 2021 across an area of approximately 4.15 km by 4.13 km centred on the study area;
- A review of previous archaeological and heritage studies within the Goulburn Mulwaree LGA; and
- A site inspection conducted on 27 October 2021 by qualified heritage consultants to identify any visible Aboriginal artefacts or features of potential archaeological sensitivity.

The assessment adhered to the due diligence process outlined by DECCW (2010) to determine the likelihood of Aboriginal sites being present and the necessity for further heritage management actions.

A full Due Diligence report is provided in Appendix 14.

16.1. Existing Conditions

The Site is located within gently undulating terrain characterised by mixed rural land uses and modified drainage channels. A small creek traverses the Site from south to north, and several dams and contour banks have been constructed to manage runoff. The ground surface has been heavily disturbed through agricultural practices, including ploughing, stock movement, and earthworks.

The AHIMS search identified 36 registered Aboriginal sites within the wider 4.15 km x 4.13 km search area; however, no registered Aboriginal sites are located within the subject site. Of the 36 sites identified, artefact scatters were the most common type (67%), followed by combined artefact and potential archaeological deposits (PADs) (22%), with smaller proportions of burials and modified trees also recorded.

Three Aboriginal heritage sites are located within approximately 500 metres of the study area boundary:

- AHIMS ID 51-6-0725: A single stone artefact eroding from the edge of a second-order drainage line;
- AHIMS ID 51-5-0740: A scatter of six quartz artefacts located within an eroded gully; and
- AHIMS ID 51-6-0702: An artefact scatter and PAD comprising seven artefacts of silcrete and quartzite materials, assessed as having moderate to high archaeological significance following test excavation.

During the Site inspection, no Aboriginal artefacts were identified. Visibility across the Site was low due to dense grass cover (0.5–1.5 metres high), and significant ground disturbance was observed throughout, including compacted soil surfaces, constructed ramps, drainage channels, and dam embankments. Erosion along watercourses revealed intact soil profiles in limited areas, but no cultural material was observed.

Given these findings, the study area is assessed as highly disturbed with low archaeological sensitivity.

16.2. Potential Impacts

The assessment considered the potential for the proposed development to disturb Aboriginal heritage items or archaeological deposits. Based on the environmental context, Site inspection results, and predictive models for the Goulburn region, the likelihood of encountering Aboriginal objects within the development footprint is low.

The study area does not exhibit the key landscape features identified in the Due Diligence Code of Practice as being highly sensitive for Aboriginal occupation (e.g., ridge lines, caves, sand dunes, or cliff faces). Although a watercourse

traverses the Site, this feature has been modified for agricultural and drainage purposes, reducing its potential archaeological value.

While the Goulburn predictive model classifies the broader landscape as having medium archaeological potential, the observed level of ground disturbance, poor soil drainage, and historical land modifications significantly diminish the probability of intact artefacts remaining in situ. Accordingly, the Proposal is unlikely to result in any direct or indirect impact to Aboriginal cultural heritage.

16.3. Mitigation Measures

In accordance with the *Due Diligence Code of Practice* and statutory requirements under the *NPW Act (1974)*, the following measures are recommended in table 16.1.

Table 16. 1 Aboriginal heritage mitigation measures.

Item	Measure
1.	In accordance with the due diligence guidelines, works can proceed with caution and without the need for further archaeological assessment
2.	If changes are made to the project that may result in impacts to areas not assessed by this due diligence further assessment would be required
3.	Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974. If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and LALC must be notified
4.	If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the Site should be secured, and the NSW Police and Heritage NSW should be notified

16.4. Conclusion

The Aboriginal Heritage Due Diligence Assessment undertaken for 88 Murrays Flat Road, Towrang determined that no Aboriginal sites or objects are present within the development site. The Site is considered to have low archaeological sensitivity due to extensive historical disturbance associated with past agricultural and drainage works.

Given the absence of recorded sites and the results of field investigation, no further archaeological investigation is required, and the Proposal may proceed in accordance with the due diligence recommendations. Should unexpected Aboriginal objects be identified during works, the procedures outlined under the *National Parks and Wildlife Act 1974* must be implemented immediately.

17. Flora and Fauna Assessment

Hayes Environmental has prepared a Flora and Fauna Assessment (FFA) in support of the Proposal. The FFA was undertaken in accordance with the requirements of the *Biodiversity Conservation Act 2016 (NSW)* and includes a review of relevant local and Commonwealth legislation. This includes consideration of the *State Environmental Planning Policy (Koala Habitat Protection) 2021*, *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)*, and relevant provisions of the *Goulburn Mulwaree Local Environmental Plan 2009* and associated Development Control Plan (DCP).

A full copy of the Flora and Fauna Assessment is provided in Appendix 15.

17.1. Existing Conditions

17.1.1. Methodology

The biodiversity assessment was informed by both desktop analysis and field survey methods. A stratified survey approach was adopted, utilising aerial imagery, topographical analysis, and on-site botanical and fauna assessments.

A botanical survey was conducted as part of the FFA over a period of four hours and involved pedestrian transects through the site. This was undertaken in accordance with *Surveying Threatened Plants and Their Habitats* (DPIE, 2020) and the draft *DEC Threatened Biodiversity Survey and Assessment Guidelines* (2004). Observations were made at 41 survey points. The Site was found to contain limited woody vegetation, and the majority of the groundcover was dominated by exotic pasture species and invasive weeds. No threatened flora species or communities were identified. A further series of 6 botanical spot surveys (each to approximately 15-20m radius) were conducted around the existing intersection of Murrays Flat Road with the Hume Highway.

Fauna habitat assessment and targeted surveys were conducted by Ms Rebecca Hogan and Lesryk Environmental in October 2021. A further habitat inspection was conducted at the intersection of Murrays Flat Road and the Hume Highway by Ms Rebecca Hogan on 26 February 2026. Surveys included active searches for indirect evidence of fauna such as scats, diggings, nests, and signs of hollow use. Identification of tree-hollows included investigation to determine if hollows were in use at the time of surveys. No fauna of conservation significance was recorded, and the Site was not identified as providing critical habitat for threatened species.

17.1.2. Landscape Context

The Development Site is located within a broad belt of historically cleared agricultural land east of Goulburn, situated on the southern edge of Murrays Flat, a broad river-flat associated with the Wollondilly River. The Site is characterised by open pasture dominated by exotic grass and weed species, reflecting a long history of agricultural use.

No part of the subject land includes biodiversity values as mapped in the Biodiversity Values Map.

Native vegetation within the Site is highly limited and fragmented, comprising isolated native trees and small patches of native grassland, with a combined area of approximately 0.2 hectares. These patches are small (<5 ha), degraded, and disconnected, with the majority of the Site consisting of exotic pasture.

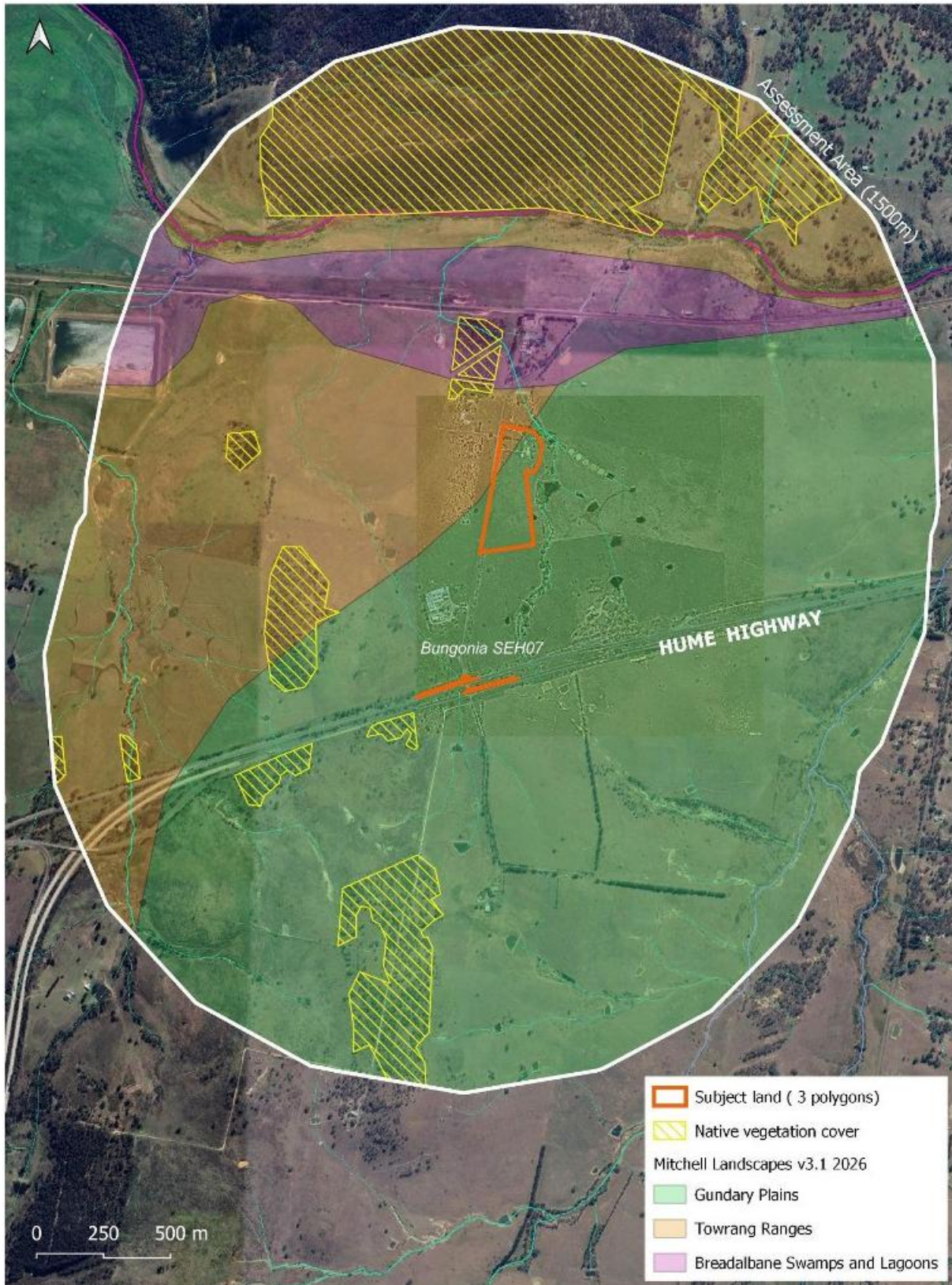
Key landscape features include:

- Scattered native trees, including remnant and regrowth eucalypts, with a combined canopy area of approximately 0.06 ha;
- Small patches of native grassland (approximately 0.14 ha), with the remainder of the Site comprising managed exotic pasture;
- A network of modified creeklines, re-formed into drainage channels associated with agricultural use;
- Several farm dams, most of which do not contain wetland vegetation and are of limited habitat value, although two larger dams contain some aquatic vegetation;

- Highly modified hydrology, with drainage generally directed towards the Wollondilly River; and
- A surrounding landscape that is predominantly rural and cleared, resulting in low habitat connectivity, with the Site not forming part of a significant wildlife corridor.

There are no declared Areas of Outstanding Biodiversity Value (AOBV) within or adjacent to the Site, and no areas of geological significance have been identified within the development footprint or the surrounding assessment area.

Figure 17.1. Map of landscape features within 1500m buffer around the landholding (white boundary).



17.1.3. Native Vegetation

The subject land has historically been cleared of virtually all native vegetation and extensively managed for agricultural production. Native vegetation currently present within the development footprint is highly fragmented and limited in extent, comprising isolated native trees with a combined canopy area of approximately 0.06 hectares and small areas of native grassland with a combined area of approximately 0.14 hectares. Areas where native groundcover comprises less than 15% of total cover are classified as exotic pasture and are not considered native vegetation. (See Figure 17.2):

The native vegetation within the Site generally comprises two vegetation zones:

- Zone 1 – Native Tree Canopy: Consisting of remnant and regrowth native eucalypts with a low percentage of native grasses in the ground layer and no shrub layer present; and
- Zone 2 – Native Grassland: Comprising small patches of grassland where native species cover exceeds 15%, surrounded by extensive areas of exotic pasture.

Native trees recorded within the subject land include Cabbage Gum (*Eucalyptus amplifolia*), Apple Box (*Eucalyptus bridgesiana*), Yellow Box (*Eucalyptus melliodora*), and Blakely's Red Gum (*Eucalyptus blakelyi*). No native shrub species were recorded within the Site. The ground layer is predominantly characterised by managed exotic pasture species, with scattered occurrences of native grasses and forbs.

The vegetation present within the Site has been identified as:

- Vegetation Class: Southern Tableland Grassy Woodlands; and
- Plant Community Type (PCT) 3373: Goulburn Tableland Box-Gum Grassy Forest.

PCT 3373 is associated with the NSW-listed Critically Endangered Ecological Community (CEEC) known as White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland. However, the vegetation within the subject land is highly degraded and does not meet the condition thresholds required for inclusion within the Commonwealth-listed equivalent ecological community under the EPBC Act.

Figure 17.2. Field Survey points and paths.

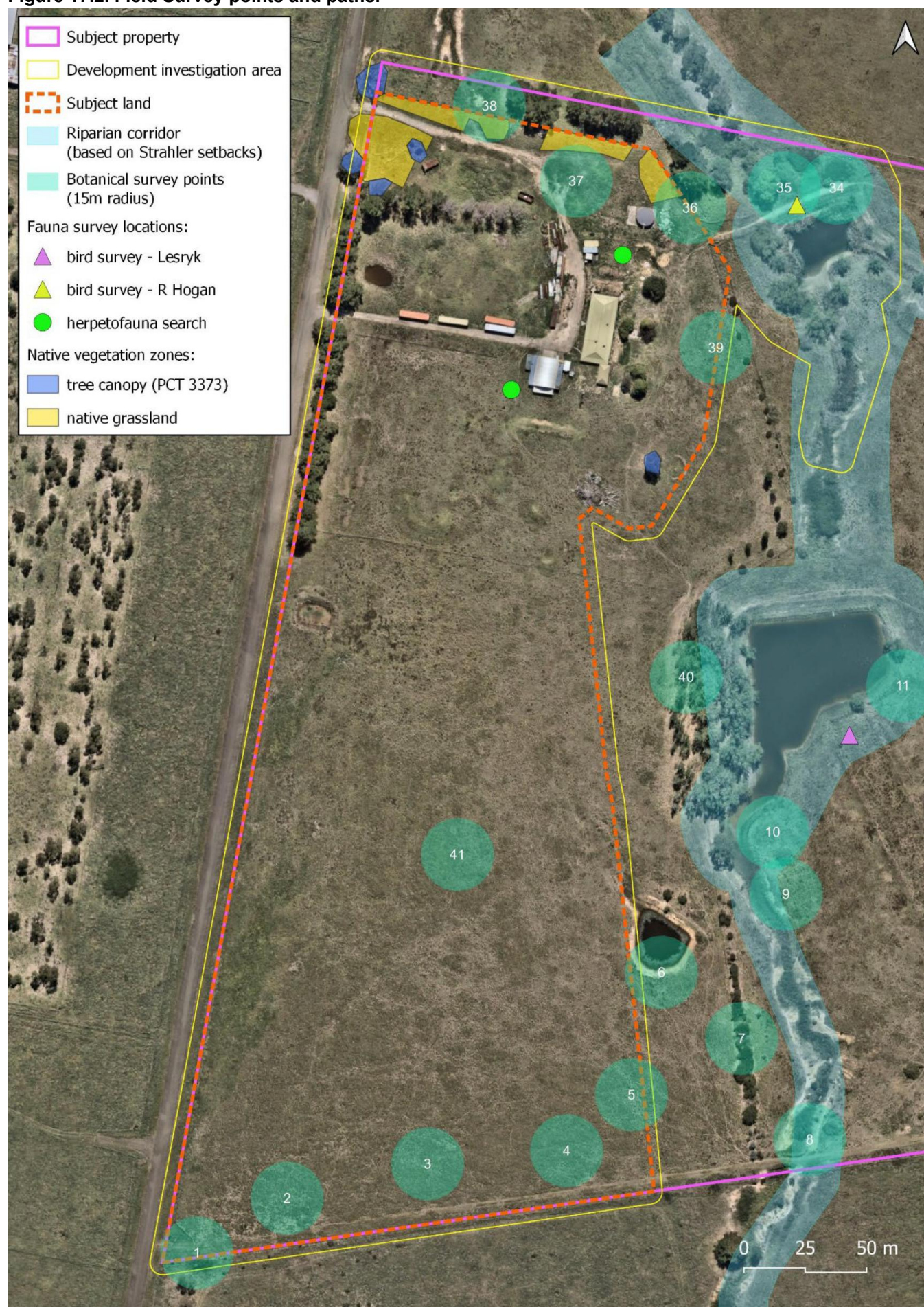


Figure 7.2 Native Vegetation zones & field survey locations around the proposed highway intersection upgrade.



17.2. Impact Assessment

17.2.1. Significance Test

Species identified as being relevant for assessment have been identified in the FFA, with consideration applied as to whether each species was likely to occur on the subject land or be affected by the development (based on specific habitat requirements, known records, and field survey results), and correspondingly, whether an assessment of the significance of impacts was required using the Test of Significance set out under section 7.3 of the BC Act.

17.2.2. Direct Impacts

Direct and potential impacts of the proposed development on native vegetation and threatened entities including details of the affected vegetation zones, extent of impact, and summary of avoidance and minimisation measures are presented in Table 17.1.

Table 17.1. Direct Impacts.

Type of impacts	Veg. Zone	Extent & details of impact	Summary of avoidance and minimisation
Complete loss of native vegetation	Native trees	Four isolated native trees with a combined canopy area of approximately 0.02ha.	The development layout was designed to retain mature native trees where possible. Three smaller trees have been identified for removal within the development footprint. One further tree is likely to require removal adjacent to the highway intersection, to enable safe use of the intersection.
Probable disturbance and/or loss of native vegetation	Native grassland	Up to 0.14 ha of low quality native grassland.	These areas are dominated by exotic pasture grasses and weeds and are of low biodiversity value. Most are not directly within the development footprint and may be retained in their existing condition, or

Type of impacts	Veg. Zone	Extent & details of impact	Summary of avoidance and minimisation
			included in site landscaping. No specific avoidance measures are warranted.

17.2.3. Indirect Impacts

Direct and potential impacts of the proposed development on native vegetation and threatened entities along with details of the affected vegetation zones, extent of impact, and a summary of avoidance and minimisation measures are summarised in Table 17.2.

Table 17.2. Indirect Impacts.

Type of impact	Details	Summary of avoidance and minimisation
Inadvertent physical damage to retained vegetation.	There is potential during construction activities for inadvertent damage to existing trees to be retained, particularly around the existing driveway entrance to the property. Of particular note is the tentative identification of a sapling as either <i>Eucalyptus macarthurii</i> or <i>Eucalyptus aggregata</i> (both listed as threatened species) approx. 20m beyond the footprint of the proposed highway intersection works.	Tree protection measures shall be installed around native trees to be retained within the subject land, as recommended by an Arborist. The extent of site works for the highway intersection upgrade shall be clearly marked on site, to minimise risk of inadvertent damage to trees and saplings outside of the works footprint.
Reduced viability of habitat due to edge effects.	There are no vegetation 'edges' to be managed.	No measures proposed.
Reduced viability of habitat due to noise, dust or light spill.	The potential increase in noise, light, and dust from construction works and subsequent use of the development would be negligible given existing impacts from dwellings, agricultural activities, and the nearby Hume Highway.	No measures proposed beyond compliance with standard environmental controls.
Spread of diseases and weeds.	There is risk of introduction of diseases and weed propagules with construction equipment coming onto the site, and with future landscaping activities. The increase in risk resulting from the development would be negligible given the existing condition of the land and existing agricultural activities on the land.	Biosecurity risk during construction should be addressed as follows: i) all machinery, equipment and work boots be cleaned of soil and plant propagules prior to entering the development site, and upon leaving the development site; and ii) any fill, soil, or mulch imported to the site be screened and certified clean of diseases and weeds.
Loss of food and shelter for fauna.	The development would not alter the availability of food and shelter for fauna in areas of retained vegetation.	No measures proposed.
Loss of breeding habitat.	The development would not result in loss of breeding habitat for native species in areas of retained vegetation.	No measures proposed.
Trampling of threatened flora species.	Not applicable	No measures proposed.
Inhibition of nitrogen fixation and increased soil salinity.	unlikely impact	No measures proposed.

Type of impact	Details	Summary of avoidance and minimisation
Fertiliser drift.	no change to existing impact	No measures proposed.
Rubbish dumping.	Not likely to occur.	No measures proposed.
Wood collection.	no change to existing impact	No measures proposed.
Removal of rocks.	Not applicable.	No measures proposed.
Increase in predators.	no change to existing impact	No measures proposed.
Increase in pest animal populations.	Not likely to occur.	No measures proposed.
Changed fire regime.	Not likely to occur.	No measures proposed.
Disturbance to specialist breeding and foraging habitat.	The development would not result in loss of specialist breeding or foraging habitat in areas of retained vegetation.	No measures proposed.

17.3. Prescribed Biodiversity Impacts

Prescribed biodiversity impacts are potential impacts on threatened entities and their habitats, in addition to, or instead of, impacts associated with vegetation clearing, as defined under Clause 6 of the Biodiversity Conservation Regulation. An assessment of prescribed biodiversity impacts was undertaken as part of the Biodiversity Development Assessment Report (BDAR). The assessment concluded that there are no prescribed biodiversity impacts relevant to the proposed development.

17.4. Biodiversity Offset Scheme

A minimum lot size has not been assigned to the land. The actual lot size is 32 hectares. The area of clearing criteria under the Biodiversity Offset Scheme is 0.5 hectares.

The proposed development would directly impact approximately 0.16 hectares of native vegetation. This is below the area threshold. The Proposal would not exceed the area threshold.

The Biodiversity Offset Scheme does not apply. Further assessment of the project using the Biodiversity Assessment Method (BAM) is not required. A Biodiversity Development Assessment Report (BDAR) is not required. Offsetting of impacts under the Biodiversity Offsets Scheme (BOS) is not required.

17.5. Matters of National Environmental Significance

The FFA concluded that the Proposal would not be likely to impose a significant impact upon any matter of National Environmental Significance listed under the Commonwealth EPBC Act.

Therefore, there is no requirement to refer the project to the Commonwealth Minister for Environment.

17.6. Mitigation Measures

A summary of measures to be implemented to avoid, minimise and mitigate impacts including those essential to the impact assessment presented Table 17.3.

Table 17.3. Mitigation Measures.

Action	Outcome	Timing	Responsibility
Prior to Construction			
Tree protection measures shall be installed around trees to be retained within the subject land, as recommended by an Arborist.	Avoid inadvertent physical damage to retained trees.	Prior to commencement of construction activities, for the duration of works.	Project Arborist

Action	Outcome	Timing	Responsibility
The extent of site works for the highway intersection upgrade shall be clearly marked on site.	Minimise risk of inadvertent damage to trees and saplings outside of the works footprint.	Prior to commencement of construction activities, for the duration of works.	Construction site manager
Installation of sediment and erosion control features to meet relevant standards.	Minimise impacts downslope and downstream.	Prior to commencement of construction works, for the duration of works.	Construction site manager
During Construction			
Cleaning of machinery, equipment and boots	Avoid spread of disease and weeds.	Throughout site works, whenever equipment, machinery or work boots enters or leaves site.	Construction site manager & all site workers
Fill, soil, or mulch imported to the Site to be screened and certified clean of diseases and weeds	Minimise potential for spread of diseases and weeds.	As relevant.	Project Manager
Following Construction			
Careful removal of tree protection measures, sediment & erosion control, and any other temporary features.	Minimise potential for spread of diseases and weeds.	Upon completion of all site works and stabilisation of soil surface.	Construction site manager
Supplementary planting of local native tree and shrub species in the riparian corridor to the east of the subject land.	Replace native vegetation removed from the subject land. Improve floristic and structural diversity of the riparian corridor.	Prior to occupation/use of the development.	Project Manager

17.7. Conclusion

The FFA confirms that the Site comprises highly modified and previously cleared agricultural land with limited ecological value. Native vegetation within the Site is confined to small areas of regrowth woodland and native grassland, both of which are in a degraded condition and offer negligible habitat for threatened species. Potential direct and indirect impacts associated with the Proposal are considered to be minor, and appropriate mitigation measures have been recommended to avoid or minimise any residual impacts.

In summary:

- The development would not affect any Areas of Outstanding Biodiversity Value (AOBV);
- The development would not exceed the Biodiversity Offset Scheme Entry Threshold (BOSET); and
- The development would not be likely to significantly affect threatened species or ecological communities, or their habitats.

Overall, the Proposal is considered unlikely to result in a significant impact on biodiversity values.

18. Energy Assessment (SEPP Sustainable Buildings) 2022

Piechowski Energy has prepared an energy assessment for the Proposal to address the sustainability requirements outlined under Section 3.2 of the *State Environmental Planning Policy (Sustainable Buildings) 2022*. The report demonstrates how the proposed development responds to the policy's objectives through design, operational, and passive sustainability measures. The full Energy Assessment Report (EAR) is provided in Appendix 16.

18.1. Existing Conditions

The Site currently contains a single rural residential dwelling, open pasture areas, and minor ancillary structures. The dwelling is of typical residential construction and is proposed to be repurposed as an administration building under the development. There are no energy efficiency features, sustainability initiatives, or passive design elements currently present on the Site. No systems exist to support water reuse, energy conservation, or reduced mechanical reliance for heating and cooling.

18.2. Impact Assessment

The proposed development incorporates a suite of sustainability initiatives designed to improve energy performance and reduce the overall environmental footprint. High-efficiency motors with Variable Speed Drives (VSDs) will be installed for all shredders, conveyors, and other plant equipment. These motors are designed to meet the Minimum Energy Performance Standards (MEPS) under the *Greenhouse and Energy Minimum Standards (GEMS) Act 2012*.

Power factor correction (PFC) equipment will be installed on major distribution boards to reduce site-wide power demand. In addition, a soft-start and staged equipment start-up plan will be implemented to prevent peak load spikes from simultaneous equipment activation. A centralised Energy Management System (EnMS) will be used to monitor, manage, and optimise Site energy demand, supported by submeters on major equipment to track real-time usage. Where practical, large equipment will be powered down or placed in low-energy standby mode when not in operation. Heating, Ventilation and Air Conditioning (HVAC) systems will be selected to meet MEPS under the *GEMS (Air Conditioners up to 65kW) Determination 2019*. Administrative buildings and operational sheds will be constructed to comply with *National Construction Code (NCC) Volume 1, Section J4*, ensuring minimised mechanical heating and cooling requirements. Passive design features such as operable louvres and ridge vents will also be included to reduce reliance on mechanical systems.

Energy-efficient lighting systems, including zoned LED lighting with smart controls (e.g. motion and daylight sensors), will be installed throughout the development to limit unnecessary usage. Warehouses and processing facilities will incorporate skylights and translucent wall panels to enhance natural daylighting while reducing artificial lighting demand. The design of these elements will consider both summer solar gain minimisation and year-round daylight access.

A Solar Photovoltaic (PV) system will be considered to support daytime energy needs, with the potential integration of a Battery Energy Storage System (BESS) to shift energy demand and provide power supply during nighttime periods. These systems are intended to offset grid reliance for continuous operations such as security lighting and HVAC. Illumination design will be guided by *NCC Section J7D3*, ensuring that illumination power density remains within prescribed limits based on building classification. Furthermore, the repurposed administrative building will be optimised to improve natural lighting penetration through the use of north-facing windows, high-performance glazing, and strategic internal layout.

To meet *NCC Part J9D3* requirements, all energy meters will be connected via a central communication system that consolidates time-of-use data into a single interface for monitoring, analysis, and reporting. Water efficiency will also be incorporated through rainwater harvesting. The development includes the installation of four rainwater storage tanks, with a combined capacity of approximately 310,000 litres. These tanks will collect runoff from roofs and will be configured to supply non-potable demands including toilet flushing, landscape irrigation, and washdown areas.

18.3. Mitigation Measures

No additional mitigation measures have been proposed beyond those already embedded in the energy-efficient design and operational strategy. The sustainability outcomes will be achieved through the integrated passive and active energy management systems as detailed above.

18.4. Conclusion

The proposed development demonstrates strong alignment with the objectives of SEPP (Sustainable Buildings) 2022 through the inclusion of passive design features, high-efficiency mechanical systems, smart lighting controls, renewable energy readiness, and water reuse initiatives. These integrated sustainability measures will contribute to improved operational performance, reduced greenhouse gas emissions, and long-term environmental benefits for the Site.

19. Hazards Assessment

Riskcon has been engaged to prepare a Hazards Risk Assessment (HRA) in accordance with Chapter 3 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* (SEPP – RH), formerly known as SEPP 33. A full copy of the HRA is provided in the Appendix 17.

19.1. Methodology

The assessment was undertaken with reference to the guideline *Applying SEPP 33 – Hazardous and Offensive Development*, which provides thresholds and criteria to determine whether SEPP-RH applies. The methodology included:

- Review of the types and proposed quantities of Dangerous Goods (DGs) to be stored or handled on-site;
- Review of the potential for any other offensive or hazardous operations at the Site;
- Comparison of DG quantities against threshold levels outlined in SEPP 33 guidelines;
- Review of vehicular movements involving DGs in the context of applicable SEPP-RH thresholds;
- Identification of potential offensiveness including odour, noise or nuisance based on the operational activities and EPA licensing requirements; and
- Reporting of findings against SEPP-RH thresholds and provisions.

This approach ensured that the proposed development was assessed comprehensively in accordance with the intent and application of SEPP – RH and relevant supporting guidance.

19.2. Impact Assessment

The proposed development will not involve the storage or handling of Dangerous Goods (DGs) in quantities that trigger thresholds under SEPP-RH. A 50,000-litre self-bunded diesel tank is proposed to be located on a concrete hardstand with bunding and overhead awning to prevent stormwater ingress during refuelling. Diesel, with a flash point above 60°C, is classified as a C1 combustible liquid, which is not assessable under the SEPP 33 framework.

Limited depollution activities may occur on-site, involving the removal and temporary storage of oils and greases from vehicles. These materials are classified as C1 or C2 combustible liquids and, similar to diesel, fall outside the scope of SEPP – RH assessment thresholds. Therefore, the volumes and classifications of all materials proposed for storage or handling do not trigger the requirement for a Preliminary Hazard Analysis or further hazard studies.

Vehicular movements to and from the facility do not involve the transport of assessable quantities of DGs and do not exceed the thresholds set out in the guideline. Therefore, risks related to DG transport are considered negligible.

In terms of offensive risk, the facility does not undertake any manufacturing or processing activities that would result in significant odour, airborne emissions, or noise. Waste materials will be sorted and processed in designated areas with appropriate containment measures. No operations involve the release of bulk chemicals, gaseous by-products, or other nuisance emissions. The Facility does not require an Environmental Protection Authority (EPA) licence for offensive activities.

The nearest residential receiver is approximately 200 metres from the Site boundary. Given the nature of operations, bunding of storage areas, and proposed acoustic and visual screening measures, there will be no adverse impact on nearby sensitive land uses. In addition, standard construction and operational noise controls will be implemented to maintain compliance with applicable guidelines.

Overall, the development does not trigger SEPP – RH requirements and is not expected to result in any hazardous or offensive impacts.

19.3. Mitigation measures

Based on the assessment undertaken, no mitigation measures are required under SEPP-RH. The development does not meet the criteria for a potentially hazardous or offensive industry and will not store or handle Dangerous Goods in volumes that exceed threshold levels.

19.4. Conclusion

The assessment has confirmed that the proposed Sydney Metal Traders facility does not constitute a potentially hazardous or offensive development under SEPP – RH. No Dangerous Goods will be stored or handled in volumes that exceed relevant thresholds, and the operations do not involve offensive activities such as odour generation, excessive noise, or air pollutant emissions. The Site is therefore considered compliant with the objectives of SEPP – RH, and no additional hazard analysis is required.

20. Flood Assessment

Sowdes was engaged to prepare a Local Flood and Overland Flow Study (Flood Study) to support the Proposal. The purpose of the Flood Study was to assess site-specific flooding constraints and evaluate the potential risks associated with both riverine and overland flooding, with a particular focus on the 1% Annual Exceedance Probability (AEP) event. The assessment responds to the requirements of Chapter 3.8 – Flood Affected Lands of the *Goulburn Mulwaree Development Control Plan (DCP) 2009* and aligns with the objectives of the *NSW Flood Prone Land Policy* and the *NSW Flood Risk Management Manual (2023)*. A full flood assessment is provided at Appendix 18.

20.1. Existing conditions

20.1.1. Flood Liable lands

Regional flood modelling prepared by Council (2022) confirms that the northern and central portions of the Site are affected by the Probable Maximum Flood (PMF), with approximately 50% of the property predicted to be inundated during such events. However, the proposed development footprint is situated within the south-western corner of the Site, which is located outside of the flood planning area associated with the 1% AEP riverine flood level and benefits from elevated topography.

Although the Site avoids the flood planning area, it is intersected by two natural drainage depressions that convey surface water runoff from the south. These overland flow paths are generated from the surrounding rural lands and Hume Highway traffic corridor and traverse the Site in a generally south-to-north direction. The western flow path is the most prominent and receives upstream contributions via a well-defined vegetated channel.

20.1.2. Catchment Details

The contributing catchment area is approximately 80 hectares in size and is predominantly composed of rural grasslands with minimal impervious surface coverage. The catchment drains northwards, beginning at the Hume Highway and extending towards the development site. Surface runoff flows through a combination of shallow depressions, scattered farm dams, and meandering drainage lines, which exhibit signs of erosion, sediment deposition, and intermittent ponding.

The hydraulic performance of the catchment was analysed using Australian Rainfall and Runoff (ARR) 2019 guidelines. A uniform Manning's 'n' roughness coefficient of 0.04 was adopted to represent the open, pervious terrain and drainage corridors. In post-development modelling scenarios, adjustments were made to reflect the increased imperviousness of the metal recycling facility footprint.

A broader catchment model of 215.56 hectares was established to define upstream flow paths, delineate the local drainage network, and assess the extent of flow contributions from surrounding lands. This model informed the hydrologic and hydraulic analysis, providing a basis for mitigation design.

20.2. Impact Assessment

The Flood Study confirms that the Proposal will not be adversely impacted by riverine flooding under the 1% AEP scenario and will remain functional during PMF events. The selected location of the metal recycling facility on the highest part of the Site ensures that infrastructure is not exposed to excessive flood hazard and is not situated within any mapped flood planning area.

Potential impacts associated with overland flow have been carefully assessed. The development has the potential to alter localised flow paths, increase surface runoff from impervious areas, and influence the velocity and depth of water within existing drainage lines. However, these risks have been addressed through appropriate site planning, elevation of finished floor levels, and implementation of overland flow controls.

Hydraulic modelling under post-development conditions demonstrates that the proposed layout will not exacerbate downstream flooding or increase flood levels beyond the property boundary. In fact, the inclusion of bunding, graded surfaces, and detention mechanisms ensures that the development will not concentrate or accelerate stormwater discharge into adjacent lands.

The development also avoids encroachment into key overland flow paths and maintains sufficient buffers to allow unimpeded passage of floodwaters. The proposed infrastructure is sited outside of high-velocity zones, and no habitable or critical infrastructure is located in flood-affected areas.

The following modelling pre and post development has been provided with an associated figure in Appendix A of the Flood Study (see Appendix 18):

- 1% AEP Pre-Development and Post-Development Flood Function Categories;
- 10% AEP Pre-Development and Post-Development Water Depths and Levels;
- 10% AEP Pre-Development and Post-Development Flood Hazard Categories;
- 1% AEP Pre-Development and Post-Development Water Depths and Levels;
- 5% AEP Pre-Development and Post-Development Flood Hazard Categories;
- 1% AEP Pre-Development and Post-Development Water Depths and Levels;
- 1% AEP Pre-Development and Post-Development Flood Hazard Categories;
- 1% AEP Pre-Development and Post-Development Velocity x Depth Product; and
- 1% AEP Pre-Development and Post-Development Water Velocity.

The Flood Study has concluded the following:

Item No.	Conclusion
1	The combination of measures to manage stormwater runoff from within the recycling precinct has the effect of slowing the flow of water from the Site via various detention measures, and this invariably results in a reduction of the peak flows and water depths crossing the northern boundary of the property.
2	The loss of water storage associated with the decommissioning of the small dam to the east of the proposed workshop and recovery sheds in the recycling precinct is more than adequately compensated by the increased storage provisions associated with the three sedimentation basins in the post-development conditions.
3	The combined surface area of the three sedimentation basins is significantly greater than that of the existing dam, and for the two larger basins there is an extended detention zone of 800mm above the invert level of the outlet pipe, and for the remaining basin the extended detention zone is 500mm above the invert level of the outlet pipe.
4	Additional detention storage is created within lower northern end of the two infill areas within the recycling precinct by the raised roadways which helps to attenuate the release of water until after the peak of the event and thereby add to the overall reduction in peak flows.
5	In relation to this matter it is noted that the design finished surface levels for the perimeter roads around the eastern aspect of the recycling precinct where the greatest risk of flood affectation is likely to be encountered are at least 500mm higher than the adjacent flood contour level, and in most instances the height differential is significantly greater.

20.3. Mitigation Measures

The Flood Study does not identify any specific flood mitigation measures as the Site is not considered to be flood-affected under the applicable flood planning criteria. The results indicate no additional sensitivity assessment is required.

20.4. Conclusion

The Flood Study confirms that the proposed development can be accommodated on the Site without increasing flood risk to the subject land or neighbouring properties. The development footprint avoids the adopted flood planning area and is sited well above the 1% AEP riverine flood level. While the Site is partially affected by PMF and overland flows, these impacts have been appropriately mitigated through layout design and elevation.

With the incorporation of drainage controls and adherence to finished floor level requirements, the Proposal is considered consistent with the objectives of the NSW Flood Prone Land Policy, the NSW Flood Risk Management Manual (2023), and Chapter 3.8 of the Goulburn Mulwaree DCP. No significant residual flood risk is anticipated.

21. Estimated Development Cost

An Estimated Development Cost (EDC) has been prepared for the Proposal by Napier & Blakely using *NSW Government Planning Circular PS 24-002 Changes to how development costs are calculated for planning purposes*. The EDC is provided in Appendix 19.

A summary of the estimated development cost is presented in Table 21.1.

Table 21.1. Estimated Development Cost Summary.

Description of Works	Cost of Works (Excl. GST)
Demolition and Remediation	-
Construction Cost	\$13,171,177.00
Fixed & Mobile Plant & Equipment (If applicable)	-
Carrying Out of Works (If applicable)	-
Mitigation of Impact Items (If applicable)	-
Furniture, Fittings & Equipment (FFE) & Operational Equipment (Where forming part of the application)	\$10,528,675.00
Fitout costs (Where forming part of the application)	-
Sub-total – 1	\$23,699,852.00
Add: Professional Fees (6.0%)	\$1,421,991.00
Add: Contingency (5.0%)	\$1,184,993.00
Add: Escalation (2.6%)	\$613,599.00
Sub-total – 2	\$26,920,435.00
Add: Authority Fees (LSLL) - <i>GST Exempt (0.25%)</i>	\$74,031.00
Total EDC (Excl. GST)	\$26,994,466.00
Add: GST - <i>Calculated on Sub-total - 2 Amount only</i>	\$2,692,043.00
Estimated Total Development Cost (Incl. GST)	\$29,686,510.00

The estimated total development cost for the proposed metal recycling facility is \$26,994,466.00 (excluding GST).

22. Cumulative Impact Assessment

A cumulative impact on the environment results from the incremental impact of human activities with consideration to the historic, current and foreseeable planned activities for a particular area. Cumulative impacts from a cluster of premises will vary between locations but typically cumulative impacts are a product of the location, the number and type of facilities present in the vicinity, the way they are managed, and the capacity of the local environment to accommodate these facilities.

Upcoming future projects in the area include:

- Goulburn Base Hospital Redevelopment.

The proposed site is not considered to make a significant contribution to cumulative impacts due to the mitigation measures that will be put in place to manage environmental impacts. There are numerous long-term cumulative benefits of the proposed development and progress toward the aims and objectives of relevant NSW legislation concerning management of problem wastes, illegal dumping and waste to landfill targets.

22.1. Assessment of stress level of existing environment and long-term impacts of the Proposal

This section summarises the existing environmental stressors and the potential long-term impacts of the Proposal.

22.1.1. Social and Community

The proposed development is located within a predominantly rural area with surrounding land used for rural residential, agricultural, and industrial purposes. Given this land use context, the proposed development is compatible with surrounding activities. The facility is expected to contribute positively to the local economy by creating jobs and supporting regional recycling infrastructure. The development is not expected to result in adverse social impacts, provided that mitigation measures outlined in this EIS, such as dust, noise and traffic controls, are implemented. There are no anticipated long-term negative social or community impacts.

22.1.2. Waste and Sustainability

The facility promotes sustainability through the recovery and reuse of metal waste materials that would otherwise be sent to landfill. This aligns with the NSW Waste Avoidance and Resource Recovery Strategy and supports circular economy principles.

Operations will involve sorting and processing scrap metals for resale, with waste streams such as general waste and minor non-recyclables collected for appropriate disposal. The development includes an operational environmental management plan to manage all waste materials responsibly.

22.1.3. Air Quality

Air quality modelling and impact assessment have confirmed that emissions from the facility primarily dust from materials handling and vehicle movement can be effectively managed using appropriate dust suppression methods.

No offensive odour is anticipated, and operations will be managed to ensure compliance with the Protection of the Environment Operations Act 1997. The risk of cumulative impacts with surrounding industries is considered low due to the distance between the Site and other emission-generating uses.

22.1.4. Noise and Vibration

The Noise Impact Assessment indicates that operational noise emissions will comply with the NSW EPA's *Industrial Noise Policy* at all nearby sensitive receivers during both daytime and evening operations. Primary sources include vehicle movements, tipping activities and mobile equipment such as excavators.

22.1.5. Traffic

The Site will be accessed via Murrays Flat Road with direct connectivity to the Hume Highway. A Traffic Impact Assessment confirms that the proposed development will not cause unacceptable traffic impacts on the local road network.

Modelling demonstrates that key intersections will continue to operate at acceptable Levels of Service, with only minor delays forecast. A right-turn restriction for vehicles over 9m in length has been incorporated into the intersection design to improve safety. The final design includes deceleration lanes and upgraded sight distances to ensure safe entry and exit for all vehicles, including heavy trucks. Future increases in traffic have been assessed as part of the TPIA, and no cumulative impacts to traffic are expected from the Proposal.

22.1.6. Hazards and Risk

The development will involve the handling and storage of metal materials, including potential minor quantities of residual oils or fuel. All materials will be stored and processed in accordance with Australian Standards and under strict environmental controls.

Stormwater infrastructure has been designed to manage accidental spills, and bunded areas are included in the layout. The Proposal does not involve the storage of flammable materials at levels that would trigger the need for a formal hazard analysis. Overall, risks associated with the development are considered low and can be managed through standard procedures. No cumulative hazard or risk impacts are expected.

22.1.7. Biodiversity

No threatened flora or fauna species or ecological communities were recorded on Site during the ecological assessment. Minimal native vegetation clearing is required, and no impacts on native habitat are expected. The development is not expected to contribute to cumulative biodiversity impacts and will be managed in accordance with the *Biodiversity Conservation Act 2016*.

22.1.8. Heritage

A site inspection and desktop Aboriginal and historic heritage assessment concluded that the Site does not contain any known heritage items or sites of significance. The proposed development area has been previously disturbed and is unlikely to contain any unknown relics. A chance-find protocol will be implemented during construction to ensure compliance with heritage legislation in the event that unexpected items are discovered.

22.1.9. Soil and Water

The broader Wollondilly River catchment is currently influenced by rural runoff, sediment transport and agricultural land uses. WaterNSW monitoring identifies periodic exceedances of benchmark criteria for turbidity, nutrients and chlorophyll-a within the Wollondilly River at Murrays Flat.

The Proposal incorporates a comprehensive stormwater management system, including lined hardstand areas, sedimentation basins, water reuse infrastructure and biofiltration treatment measures designed to achieve a neutral or beneficial effect on downstream water quality. With the implementation of these measures and construction-phase erosion and sediment controls, the Proposal is not expected to result in significant long-term cumulative soil or water impacts.

22.2. Conclusion

The cumulative environmental impact of the proposed metal recycling facility is expected to be minimal. Potential impacts have been addressed through Site design, supporting assessments, and implementation of mitigation measures outlined in this EIS. The development supports regional recycling objectives and aligns with the strategic planning framework for industrial land use in the area.

23. Compilation of Mitigation Measures

The following table provides a comprehensive Compilation of Mitigation Measures proposed to manage and minimise the potential environmental impacts identified throughout this Environmental Impact Statement.

Table 23.1. Compilation of Mitigation Measures.

Assessment	Measures
Noise and Vibration Assessment	Operate during approved hours
	Undertake regular noise monitoring to determine the impact of operating plant on sensitive receivers
	Appropriate training of onsite staff
	Undertake community consultation and respond to complaints in accordance with established project procedures
	Turning off machinery when not in use
	Respite periods for pile drivers and rock breakers (if applicable)
	Conducting regular maintenance of plant to ensure efficient and quiet operation
	Portable temporary screens
	Screen or enclosure for stationary equipment
	Maximising offset distance between noisy plant items and sensitive receivers
	Avoiding use of noisy plant simultaneously and/or close together near sensitive receivers
	Orienting equipment away from sensitive receivers
	Carrying out loading and unloading away from sensitive receivers
	Using noise source controls such as residential-class mufflers on all plant and equipment
	Selecting site access points and roads as far as reasonably practicable from sensitive receivers
	Using non-noise-generating structures (e.g. Site offices, storage sheds, stockpiles) as noise barriers
	Reversing alarms
Wastewater Assessment	Equal use of both primary and secondary irrigation areas year-round;
	Regular monitoring and rotation of irrigation outlets;
	Protection of all drainage and transfer lines from vehicle load and compaction;
	Ongoing maintenance of the AWTs in accordance with accreditation requirements;
	Clear surface-level identification of all buried services.
	The AWTs unit will need to be serviced on a regular basis in line with the system manufacturer's accreditation guidelines and Council requirements.
	The existing Aerated Wastewater Treatment System (AWTS) unit is to be serviced and commissioned by the manufacturer or their appointed technician to ensure that the unit is working as per the product's accreditation approval.
	The existing septic tank which has been bypassed is to be formally decommissioned in accordance with the NSW Health Department publication titled Advisory Note 3 - Destruction, Removal or Reuse of Septic Tanks, Collection Wells, Aerated Wastewater Treatment Systems (AWTS) and other Sewage Management Facilities (SMF).
	The distribution of effluent between the primary and secondary disposal areas should be managed such that each area receives an equal amount of loading each year.
	Each sprinkler hose should be rotated manually by pivoting the turf valve key and shifting the sprinkler outlet to a new location at least weekly during the warmer months and every two to three days during the cooler months.
	Stormwater diversion mounds will be constructed on any upslope aspect of the wastewater management system.
	Appropriate signage noting "RECLAIMED WATER – AVOID CONTACT" is to be installed around the nominated effluent disposal area.
	The location of all drainage lines, electrical services and transfer pipes should be identified by placing marker posts in the ground.

Assessment	Measures
	All drainage pipework and electrical services associated with the wastewater management system will need to be installed deep enough below finished surface level and any internal driveways to protect them from mechanical and/or compaction damage.
Visual Impact Assessment	Provision of a 20-metre wide landscaped buffer along Murrays Flat Road.
	Use of vegetation buffers and screening shrubs as detailed in landscape plans.
	Low-profile buildings finished in recessive colours to blend with the rural backdrop
	Lighting controls to reduce glare and obtrusive effects.
	Early implementation of landscape planting, particularly in the southern and eastern boundaries.
	Selection of non-reflective cladding and building materials to minimise glint and glare
	Ongoing maintenance of landscape plantings to ensure establishment and density
	Monitoring of visual impacts post-construction, with adaptive measures as required.
Traffic and Parking Assessment	CHL Lane: To be constructed at the northern intersection (for eastbound traffic).
	CHR Lane: To be constructed at the southern intersection (for westbound traffic).
	A Traffic Management Plan (TMP) must be prepared and implemented prior to commencement of operations.
	A 'Drivers Code of Conduct' will be undertaken for all staff, truck drivers, directly employed and all contract or customer truck drivers. A condition of employment / accessing the facility will be that the code of conduct is to be signed and a refresher training done once a year to ensure compliance with access to and from the facility.
	Right-turn movements from Murrays Flat Road onto the Hume Highway will be prohibited for all vehicles, along with U-turn movements for eastbound vehicles.
	Right-turn movements from the Hume Highway (westbound) into Murrays Flat Road will be retained, supported by a compliant deceleration lane.
	Articulated vehicles will not turn right from the Hume Highway into Murrays Flat Road and will instead utilise the Hume Highway / Hume Street roundabout to undertake a U-turn and approach from the eastbound direction.
	Extending the existing channelised right-turn lane from the Hume Highway (westbound) into Murrays Flat Road to 185 metres, in accordance with Austroads standards.
	Extending and upgrading the existing auxiliary left-turn lane from the Hume Highway (eastbound) into a channelised left-turn lane (CHL) of 185 metres, including chevron line marking for guidance.
	Installation of a median island to guide traffic and prevent right-turn movements from Murrays Flat Road (towards the west).
	Construction of a 1.0-metre-wide median island on Murrays Flat Road, offset by 1.0 metre from the Hume Highway, to separate inbound and outbound traffic and provide safe clearance.
	Installation of regulatory signage and line marking to prohibit right-turn movements from Murrays Flat Road and guide vehicle movements.
	Dedicated entry and exit driveways have been incorporated for heavy vehicles, with appropriate widths (22 m and 20 m respectively) and turning radii.
	The developer/builder should always liaise and notify the adjoining properties regarding the proposed construction works.
	A notice with on-site contact details must be installed on the temporary site fence at all times.
	All staff, workers and contractors at the subject construction site are to be provided with a copy of this Construction Traffic Management Plan (CTMP) and are to be briefed.
	A temporary security fence/gates to Work Cover Authority requirements is to be provided to the property during the course of construction, and the worksite must be safely fenced off and ensured that the site is secured against unauthorised entry or when the site is not attended.
	No unauthorised pedestrians are to be given access to enter the site. Travel within the Site is to be confined to designated walkways/areas identified by safety signs and/or

Assessment	Measures
	temporary fencing. All personnel on-site are to wear safety equipment, including high-visibility vests.
	It should be noted that the locations of site amenities, staff parking, loading and unloading area(s), waste removal and storage areas may slightly change from time to time to suit the changing conditions of the site for safety and to suit the work methodology.
	Appropriate sediment control measures are to be installed prior to the commencement of any construction works, and waste bins are to be placed within the Site for the storage of demolished/waste material to ensure safe disposal or recycling and minimise impacts on the environment.
	The access to the Site is accessible via Murrays Flat Road, and it will be utilised by construction vehicles as an access point to regulate vehicular movements into and out of the Site.
	It should be noted that construction vehicles are not allowed to reverse into the Site from the road unless a Road Occupancy Permit is obtained from the Council.
	The wheels of construction vehicles are to be cleaned and hosed by construction personnel before leaving the Site to ensure that soil and other materials are not transported or tracked onto the footpath or the roadway.
	Construction vehicles are to travel on the recommended truck routes and main roads using Remembrance Driveway (Hume Highway). Construction vehicles are to obey road rules, parking restrictions and clearway restrictions at all times.
	A copy of the proposed construction vehicle route is to be provided to all construction personnel and contractors working on the building site. The developer/builder is to run site inductions on a regular basis during the construction period to inform all staff members and workers of the construction management requirements.
	All material deliveries are to be unloaded on-site. The site manager/leading foreman is to ensure that two deliveries do not occur at the same time unless they can be both accommodated on-site.
	Construction vehicles will be required to park entirely within the construction site boundaries. Parking areas will be located inside the Site nearing the proposed temporary office to minimise amenity impacts on nearing properties.
	All construction vehicles are to ensure that their engines are turned off, where possible, to minimise any noise impacts on adjoining residences and businesses and should not queue or layover on Murrays Flat Road without the Council's approval.
	A crane will be required for the proposed construction activities and is to be placed wholly within the Site. However, should a crane be required to be placed outside the confines of the subject site, approval must be obtained from the Council prior to this taking place.
	Loading and unloading are to take place wholly within the Site. All construction vehicles arriving to and leaving the Site shall have their material loads sealed or covered. The loading of disposable material into these vehicles, leaving the Site, is to occur only within the site.
	Certified traffic controllers are to be stationed at the front of the subject site during driveway construction, when required, to manage construction traffic. No traffic controllers should stop general traffic to allow construction vehicles to enter or exit the subject site without the Council's approval.
	Certified traffic controllers are to be stationed at the site frontage during the driveway construction, to manage construction vehicles safely and the worksite must be safely fenced off to ensure that the Site is secured against unauthorised entry or when the Site is not attended.
	Cyclist access along Murrays Flat Road and surrounding streets must be maintained throughout the project at all times.
	Construction vehicles are to wait for a suitable gap in vehicular traffic, and certified traffic controllers are to manage construction vehicles before exiting the Site, to minimise the impact on traffic flow, and no construction vehicles should obstruct any pedestrian movements.
	The existing public transport facilities will be maintained throughout the project. Emergency vehicle access along the surrounding streets will be maintained throughout the project. Priority is given to emergency vehicles as per normal procedures.

Assessment	Measures
	All nearby properties will be notified and updated by the builder/contractor on a regular basis at key construction stages with respect to the construction process, particularly in relation to construction vehicle movements, and to be provided with the contact details of the site manager/leading foreman.
Stormwater Management	Prepare a Construction Soil and Water Management Plan that includes the recommended construction related staging and controls with reference to the conceptual soil and water management strategy in the Water Cycle Management Study (SOWDES, October 2025). For the duration of the civil works phase establish a stabilised Site access in accordance with Standard Drawing SD6-14 at each of the proposed entrances to the Site that will eventually become the formal entrance and exit points for the metal recycling precinct component of the development. Prior to the commencement of any civil works install sediment control barriers in accordance with Standard Drawing SD6-8 along the eastern aspect of the recycling precinct and the location of Basin #3 and the biofiltration raingarden system and ensure that the clean water diversion on the western and southern aspects are formed. Establish a Site office and compound area that will be the designated space for carparking on the Site for the duration of the civil works. Define the work areas for the construction and installation of the various stormwater quality improvement devices (SQID's) and create a clear separation from the main traffic streams that will be used during the earthworks and civil works. Determine the location for separate stockpile areas for rubble, concrete, and excavated spoil within the higher elevations of the Site and away from any overland flow paths, form the stockpiles in accordance with Standard Drawing SD4-1 and line the lower side of each stockpile with barrier fencing in accordance with Standard Drawing SD6-8. Determine a Site for the placement of general rubbish and the delivery of associated materials to the Site – in particular the supply of the soils and earth-based filter media materials and line the lower side of each Site with barrier fencing in accordance with Standard Drawing SD6-8. As much as possible and practical limit the amount of delivered soil-based materials to quantities that can be installed at one time to avoid the need for stockpiling. Terminate all redundant utilities and services that are in the nominated work zone, make safe, and remove unwanted infrastructure. Until all works associated with the development are completed check and maintain the condition of all sediment control fences and other measures on a weekly basis or after rain events that generate 25mm or more within a 24 hour period, and be prepared to stop all works on short notice if there is a possibility that rain events could generate overland flows that could burden the site. Prior to commencing any bulk earthworks have provisions and arrangements in place for the transfer of virgin excavated soil, gravel, and/or rock materials to a suitable receival facility that will be in excess of the quantities that can practically be re-used on the Site - spreading of excess spoil or other excavated materials on the Site is not permitted due to potential changes in surface water flow patterns and possible downstream impacts. Maintain and continue to use the established stabilised Site accesses created off Murrays Flat Road for the duration of the civil works Erect sediment control barriers in accordance with Standard Drawing SD6-8 along the lower eastern aspects of the development Site and maintain until all earthworks are completed and re-vegetation / landscaping has achieved an effective 80% cover. Create the clean water diversion swales and berms along the western and southern aspects of the recycling precinct to redirect surface water away from the work zones. Remove all bitumen, concrete, sub-grade materials, topsoil, and excess soil from the metal recycling precinct, the internal roadways, car parking provisions, sedimentation basins, and biofiltration raingarden system including any inground services and temporarily store in the nominated stockpile areas for later use and/or removal off site Decommission the existing dam located to the east of the proposed location for the workshop and recycling shed structures by draining the water, allowing the area to dry to a workable state, and then fill with clean material in layers not exceeding 150mm with compaction of each layer to achieve 98% dry density ratio to standard compaction.

Assessment	Measures
	Undertake all site levelling and/or regrading to the design specifications to establish the base levels and profiles for the new works and stabilise any batters with a grass cover once the final levels are achieved - place all excess materials in the nominated stockpile areas and bays for later reuse or removal offsite.
	Install all inground pipes, pits, and junctions associated with the installation of stormwater and sewer drainage services, the water supply systems, and all utilities within the metal recycling precinct and between the administration precinct and the metal recycling precinct and cap-off or terminate so as to not cause nuisance and protect from possible damage.
	Construct the sedimentation basins to the design levels including the incoming and outgoing pipes, and allow each basin to be used as a temporary sedimentation basin for the duration of the earthworks and site regrading. Water captured in the sedimentation basins can be reused throughout the civil works phase for dust suppression, irrigating landscaped areas, and material compaction purposes.
	For the duration of the civil works the collection, treatment, and use of water within the sedimentation basins is to be managed in accordance with Section 6.3 of the 'Blue Book' (Landcom, 2004).
	Undertake the subsurface waterproofing works to the manufacturer's technical instructions and specifications and ensure that all treatment layers are installed properly and sealed around possible weak points such as the pit and pipe upturns, concrete plinths and slabs, retaining walls, and any other service or infrastructure element that will penetrate the continuity of the lining materials.
	Once the waterproofing process is completed and certified the base layer of the gravel materials can be imported and compacted in layers not exceeding 100mm to the design levels and grades under the supervision of a certified geotechnical engineer.
	It is recommended that the concrete roadways not be constructed at this stage to alleviate the possibility of unnecessary damage, and to allow continued traffic movement over the compacted gravel which will help stabilise and test the base layers for any weaknesses before the roadway is finally formed and finished.
	For pits and pipe upturns associated with the drainage systems that will not be finished until later in the works protect the inlets from sediment ingress in accordance with Standard Drawing SD6-12 and retain until all earthworks and the drainage systems are finalised.
	After the gravel layers are finished construction can commence for the new buildings to the design specifications and the placement of processing machinery with covers can be undertaken in the designated locations.
	Once the new sheds are constructed the proposed 150,000 litre rainwater tank is to be installed to allow the rainwater runoff from the sheds to drain into the tank and lessen any nuisance around the work zones.
	Similarly, once the processing machinery is installed and roofed covers completed the rainwater runoff from these structures is to be connected to the stormwater pits along the southern edge of the internal link roadway to also lessen any nuisance around the work zone.
	When construction of the sheds and the placement of the processing machinery is completed any final trimming, filling, levelling, and compaction of the gravel base layer is to be undertaken in readiness for forming and pouring of the internal concrete roadways to the design details.
	With the internal carriageways completed the grass lined swale along the eastern aspect of the recycling precinct can be formed to the design levels and grades, and at the same time the clean water diversions on the western and southern aspects of the recycling precinct can be checked for any damages, rectified and necessary to ensure that they will continue to divert clean water away, and any re-vegetation can be implemented.
	At this stage the sedimentation basins can be decommissioned from their temporary function during the civil works phase to their intended permanent use by appropriately settling the water and decanting the contents, allowing the surface to dry to a workable state, and then placing the waterproofing membranes and geotextile layers as per the manufacturer's specifications.

Assessment	Measures
	The final phase of the civil works involves the construction of the biofiltration raingarden system on the outlet side of Basin #3 to the design details and specifications, and the placement of the drainage layer, filter media, rock mulch cover, and vegetation to achieve the required plant density over the entire surface area. This stage should be undertaken close to the end of the civil works to help prevent sediment laden stormwater drainage adversely affecting the different filter and drainage layer materials, and to protect the integrity of the plans until such time as cleaner water is effectively entering the system.
	After all earthworks and the construction of the new buildings and covers are completed remove any excess excavated materials that cannot be reused otherwise on the Site along with other rubbish and general waste to an approved offsite repository.
	Remove all temporary barrier fencing and sediment control measures once any re-vegetation and/or landscaping has achieved the desired effective cover or finish
	Monitor the survivability of the plants within the biofiltration system and replace as necessary until at least 80% effective cover has been established
	Check the condition of all sediment control fencing at least weekly and after rain events and rectify as necessary to ensure that they are effective and ready for next rain event
	All topsoil stockpiles to be in accordance with Landcom Standard Drawing SD4-1
	All sediment control barriers to be in accordance with Landcom Standard Drawings SD6-8
	All pipe upturns and drainage pits to be protected from sediment laden stormwater ingress in accordance with Standard Drawing SD6-12
	The stabilised site accesses are to be installed in accordance with Landcom Standard Drawing SD6-14
	Check the condition of all stormwater basins at least weekly and after rain events and rectify as necessary to ensure that they are effective and ready for next rain event
	Sedimentation basins will require periodic removal of accumulated sediments and any entrapped heavy metals from the base to retain the design operating volumes.
	To protect the geomembrane liner around the internal faces of the sedimentation basins, removal of accumulated materials will need to be performed manually rather than by machine to avoid causing damage.
	Perform periodic inspection and maintenance of the biofiltration raingarden treatment device to maintain capacity and proper functioning.
	Train on-site staff on stormwater management procedures, guidelines and requirements.
	Periodically inspect, pump-out and clean all spill containment tanks
Air Quality	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
	Display the name and contact details of person(s) accountable for air quality and dust issues on the Site boundary. This may be the environment manager/engineer or the Site manager.
	Display the head or regional office contact information.
	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the relevant regulatory bodies.
	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
	Make the complaints log available to Council and/or NSW EPA when asked.
	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
	Conduct daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when requested.
	Carry out regular site inspections to monitor compliance with the DMP / CEMP, record inspection results, and maintain an inspection log available to Council and/or NSW EPA when requested.

Assessment	Measures
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on Site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
	Erect solid screens or barriers around dusty activities or the Site boundary that they are at least as high as any stockpiles on site.
	Fully enclose Site or specific operations where there is a high potential for dust production and the Site is active for an extensive period.
	Avoid site runoff of water or mud.
	Keep site fencing, barriers and scaffolding clean using wet methods.
	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below
	Cover, seed or fence stockpiles to prevent wind erosion
	Ensure all on-road vehicles comply with relevant vehicle emission standards, where applicable
	Ensure all vehicles switch off engines when stationary.
	Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment, where practicable.
	Impose and signpost a maximum-speed-limit of 25 km·h ⁻¹ on surfaced and 15 km·h ⁻¹ on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
	Implement a Travel Plan that supports and encourages sustainable travel.
Preliminary Site Investigation	The potential for significant unacceptable contamination to be present at the Site is low. However, the potential for isolated pockets of contamination to be encountered during the proposed earthworks cannot be precluded, and such instances should be managed in accordance with an unexpected finds protocol.
	The Site is suitable for the proposed industrial/commercial land use, from a contamination perspective, subject to: • Remediation and offsite disposal of the oil spilled area inside the service shed; and • Removal of the stockpiled soil and waste material and validation of the footprint.
	DRM recommends that the oil spilled area is to be remediated and excavated for offsite disposal. A validation report is to be prepared by a suitably qualified environmental consultant. This report should also include results of the validation of stockpile footprints.
Waste Management Plan	The Site will not receive or process on the Site more than 30,000 tonnes of waste per calendar year.
	Waste management and minimisation will form part of the induction program (which includes environmental due diligence training). All Project and Site personnel will be trained in the requirements of this document including minimising wastes, recognising which types of materials are recyclable and their obligations to use recycling facilities provided on site.
	Clearly assign and communicate responsibilities to ensure that those involved in the construction are aware of their responsibilities in relation to the waste management plan
	Engage and educate personnel on how the various elements of the waste management plan will be implemented
	Specific locations for waste management (e.g. recycling bin locations, material stockpile locations) will be established on Site and signposted appropriately.
	Waste management areas will be adequately managed to prevent sediment runoff and dust generation.

Assessment	Measures
	Construction Method Statements (CMS) will include practices to minimise waste generation and to maximise recycling and reuse of materials including oils, greases, lubricants, timber, glass, and metal.
	Packaging minimisation and reuse initiatives will be implemented as part of the procurement.
	Spill kit to be present on Site in the case of any fuel leaks of plant and equipment during the construction phase of the development
	Segregated waste disposal containers for the collection and recycling/disposal of all waste streams generated during the construction and operation phases will be provided onsite. Waste disposal containers will have clear signage and instructions for use to avoid cross-contamination. No rubbish shall be disposed of on site.
	Waste will be disposed to an appropriate licensed facility.
	All waste being transported off Site must be covered. The transportation must be appropriately licensed to carry that material.
	Incompatible wastes will not be mixed.
	Storage areas would be located away from waterways and the stormwater system.
	Biodegradable products will be used wherever practicable.
	Regular collection of wastes will ensure air emissions are at a satisfactory level. Inappropriate waste and wastewater management systems will be regularly inspected and audited.
	Conduct regular litter patrols to ensure litter is effectively controlled on site.
Fire Safety Study	Ensure a means of smoke or fire detection within stockpiles is provided for when personnel are not on site, such as with thermal cameras.
	Consider providing portable fire extinguishers to mobile plant involved with managing the stockpiles.
	Provide hydrant coverage for the unprocessed mixed metal stockpiles, ensuring hydrants are not within 10 m of the pile.
	The potential for the isolation valves to be automatically closed upon fire detection (i.e. alarm) shall be considered.
	Isolation valves shall be tested every six (6) months to ensure the valves do not seize and become stuck in the open position.
	A site emergency response plan and emergency services information booklet shall be prepared for the Site to fully document the emergency scenarios and the appropriate responses to those emergency scenarios.
	Dry powder extinguishers shall be readily accessible from waste storages to provide quick response by site personnel in the event of a fire.
	Operators shall be trained in the use of site fire extinguishers.
	A detailed pressure loss calculation shall be prepared for the most disadvantaged hydrant to demonstrate compliance with AS 2419.1-2017.
	A fire equipment layout drawing shall be prepared for the Site by a competent person, indicating all fire controls (extinguishers, hydrants, hose reels, etc.).
	Provide 288 m ³ water supply for firefighting purposes in the supply tanks.
Bushfire Assessment	Reduce and maintain vegetation hazards around all publicly accessible areas and along designated access and egress routes, with specific attention to the administration building, staff amenities, and the main workshop.
	Establish clear administrative procedures that define a hierarchy of responsibility for the implementation of treatment measures and decision-making during bushfire events.
	Develop emergency procedures including defined evacuation triggers, nominated assembly and refuge points, and coordination protocols with firefighting and emergency services.
	The Bushfire Risk Management Plan (BRMP) will undergo internal draft review and ratification prior to implementation. This process will clarify its objectives and ensure it becomes a practical operational tool. The finalised plan will guide the landowner in identifying needs and selecting appropriate response strategies.

Assessment	Measures
	Following finalisation of the BRMP, the landowner will consult with local firefighting agencies to discuss the plan's context, content, and implementation. The BRMP will be adopted prior to practical commencement of the recycling facility. Immediate and low-resource mitigation actions will be prioritised for early completion.
	The BRMP will be reviewed annually to verify that scheduled works have been completed or are planned ahead of the bushfire season. The review will also assess changes in management personnel and update decision-making protocols to ensure site preparedness during emergencies.
	A structured monitoring program will be maintained to evaluate such as: • The effectiveness of previous specific treatment measures; • Identification of risk mitigation and / or treatment measures outstanding to be completed; • Identification of any new risks or hazards and treatment options; • Any bush fire training and / or evacuation drills; and • Communications with the relevant firefighting, emergency, and support agencies.
Aboriginal Heritage Assessment	In accordance with the due diligence guidelines, works can proceed with caution and without the need for further archaeological assessment.
	If changes are made to the project that may result in impacts to areas not assessed by this due diligence further assessment would be required
	Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974. If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and LALC must be notified.
	If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the Site should be secured, and the NSW Police and Heritage NSW should be notified.
Biodiversity Assessment	Tree protection measures shall be installed around trees to be retained within the subject land, as recommended by an Arborist.
	The extent of site works for the highway intersection upgrade shall be clearly marked on site.
	Installation of sediment and erosion control features to meet relevant standards.
	Cleaning of machinery, equipment and boots
	Fill, soil, or mulch imported to the Site to be screened and certified clean of diseases and weeds
	Careful removal of tree protection measures, sediment & erosion control, and any other temporary features.
	Supplementary planting of local native tree and shrub species in the riparian corridor to the east of the subject land.

24. Project Justification

The proposed development by Sydney Metal Traders represents a significant investment in regional waste management infrastructure, providing long-term environmental, economic, and operational benefits for the Goulburn Mulwaree Local Government Area (LGA) and the broader Southern Tablelands region. The Proposal supports the circular economy by enabling the recovery, sorting, and recycling of ferrous and non-ferrous metals, thereby diverting waste from landfill and contributing to state and national waste reduction targets.

The Site location at 88 Murrays Flat Road, Towrang is considered ideal for the proposed operations. The 7.7-hectare Site provides adequate space for processing, sorting, storage, and vehicle manoeuvring, while maintaining separation distances from sensitive land uses. The nearest sensitive receptor is located approximately 280 metres from the Site boundary, ensuring that noise, dust, and visual impacts can be effectively managed through the implementation of appropriate mitigation measures. The Site also benefits from a strategic location approximately 450 metres from the Hume Highway, providing direct access to the regional road network and minimising potential traffic impacts on nearby residential areas.

The proposed development will process and recover recyclable metals from incoming ferrous and non-ferrous material streams sourced from Goulburn, the Southern Highlands, Sydney, and surrounding regional areas. By establishing a dedicated metal recycling operation in Towrang, the project will reduce the need to transport recyclable materials to metropolitan Sydney for processing, lowering associated freight costs, travel emissions, and vehicle kilometres travelled. This contributes to a reduction in overall greenhouse gas emissions consistent with the objectives of the *NSW Waste and Sustainable Materials Strategy 2041* and the *EPA Strategic Plan 2024–29*, which prioritise regional waste processing capacity and the recovery of valuable resources close to source.

The development represents an estimated \$26,994,466 (ex. GST) capital investment, supporting approximately ten (10) jobs during the construction phase over a 6-month period, and generating fifteen (15) new ongoing operational roles upon completion. This will provide direct employment opportunities for local residents and generate indirect benefits through local supply chains, maintenance services, and transport operators. The project will therefore make a measurable contribution to the local and regional economy, supporting economic resilience and growth within the Southern Tablelands.

From an environmental perspective, the project aligns with key sustainability objectives by promoting resource recovery and landfill diversion. The recycling of scrap metals reduces demand for raw material extraction and processing, which are energy-intensive and environmentally damaging activities. The project also includes stormwater management infrastructure such as detention and sediment basins and grassed swales to ensure runoff is effectively controlled and treated prior to discharge. These features support improved water quality outcomes and contribute to the ecological sustainability of the site.

In addition to the operational and environmental benefits, the project demonstrates strategic consistency with regional and state planning frameworks. The development supports the *Goulburn Mulwaree Local Environmental Plan 2009* objectives for the E4 general industrial zone, which encourage the establishment of industries that support employment, are compatible with adjoining land uses, and do not adversely affect the amenity of surrounding areas. The project also aligns with the objectives of the *NSW Waste and Sustainable Materials Strategy* to increase recycling rates, promote resource recovery, and strengthen regional waste infrastructure capacity.

If approved, the proposed Sydney Metal Traders facility will represent an important piece of regional infrastructure supporting a circular economy approach to waste management. It will deliver long-term environmental benefits, provide new employment opportunities, strengthen the local economy, and ensure the sustainable recovery of valuable materials within the Southern Tablelands region.

25. Conclusion

This Environmental Impact Statement (EIS) has been prepared by JEP Environment & Planning on behalf of Sydney Metal Traders Pty Ltd for the proposed development of a metal recycling facility (the Facility/Proposal) located at 88 Murrays Flat Road, Towrang NSW 2580 (Lot 3 DP 251779) (the Site). The Site, situated east of the township of Goulburn, comprises approximately 32.3 hectares of land zoned E4 General Industrial under the Goulburn Mulwaree Local Environmental Plan 2009. The proposed Facility will occupy a total of approximately 7.7 ha portion of land along the western boundary of the Site.

The development involves the receipt, sorting, cutting, shredding, and bulk transport of scrap metals for recycling into new products. Operations will occur in buildings and on outdoor hardstand areas with associated supporting infrastructure including offices, workshops, and staff amenities.

Key components of the proposed development include:

- **Receipt and Sorting Areas:** Bays for tipping, inspection, and initial segregation of incoming metals;
- **Pre-shredding and Shredding Zones:** Equipped with pre-shredders, hammermill shredders, stationary shears, and oxy-cutting facilities;
- **Post-Processing Separation Facility:** Bays for separation, recovery, and temporary storage of ferrous and non-ferrous metals;
- **Administrative Infrastructure:** Conversion of the existing cottage into office and amenity space, including staff parking;
- **Workshop and Maintenance Shed:** A fully enclosed 32 m × 15 m × 12 m building for plant maintenance and operations;
- **Mobile and Stationary Equipment:** Loaders, shears, conveyors, radiation detection systems, and sorting equipment;
- **Weighbridges:** Two entry/exit weighbridges and one internal weighbridge for load management;
- **Fuel Storage:** A 50,000 L self-bunded diesel tank installed on a concrete hardstand with bunding and rain cover;
- **Landscaping and Screening:** A 20 m-wide landscaped setback along the western and southern boundaries;
- **Traffic Management and Site Circulation** – Paved hardstand access ways using existing access points with the addition of a new exit closer to the Hume Highway to minimise impacts on local roads and residential areas;
- **Intersection Upgrades** – To improve safe intersection sight distances (SISD), accommodate anticipated turning volumes, and provide a safe environment for both light and heavy vehicles accessing the site, the following intersection and turning upgrades are proposed:
 - **CHL Lane:** To be constructed at the northern intersection (for eastbound traffic);
 - **CHR Lane:** To be constructed at the southern intersection (for westbound traffic);
 - A channelised left-turn lane (CHL) to improve safe intersection sight distance (SISD) for vehicles approaching the Hume Highway from Murrays Flat Road;
 - The right-turn movement from Murrays Flat Road onto the Hume Highway will be prohibited for all vehicles, along with any U-turn movements for eastbound vehicles intending to travel back towards Goulburn;
 - Right-turn movements from the Hume Highway (westbound) into Murrays Flat Road will be retained, with a compliant deceleration lane designed in accordance with Austroads guidelines;
 - Extension of the existing channelised right-turn lane on the Hume Highway (westbound) into Murrays Flat Road to 185 metres, in compliance with Austroads standards;

- Extension and upgrade of the existing auxiliary left-turn lane on the Hume Highway (eastbound) into a channelised left-turn lane of 185 metres, including chevron line marking for guidance;
- Installation of a median island to guide traffic and prevent right-turn movements from Murrays Flat Road (towards the west);
- Construction of a 1.0-metre-wide median island on Murrays Flat Road, offset by 1.0 metre from the Hume Highway, to separate inbound and outbound traffic and provide safe clearance; and
- Installation of regulatory signage and line marking to prohibit right-turn movements from Murrays Flat Road.
- Renewable Energy Infrastructure – The Facility will incorporate rooftop solar photovoltaic (PV) panels installed on the Workshop and Maintenance Shed, with power stored via an integrated Battery Energy Storage System (BESS);
- Wastewater system upgrades for on-site effluent treatment and disposal; and
- Stormwater Management – All operational areas will be constructed of compacted road base incorporating HDPE liners beneath operational areas, stormwater capture systems, and detention basins. The stormwater management system is designed to progressively capture and treat runoff through a series of infrastructure elements.

The proposed Facility will receive and process up to 30,000 tonnes of scrap metal per annum. As the Site lies within the Sydney Drinking Water Catchment, the development is classified as Designated Development under Clause 45(4)(c) of Schedule 3 of the *Environmental Planning and Assessment Regulation 2021*. The project also qualifies as Regionally Significant Development, with an estimated capital investment value of \$10 million under Clause 5(a) of Schedule 6 of the State Environmental Planning Policy (Planning Systems) 2021.

This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs 2038) issued on 13 November 2025 by Mr. Joanna Bakopanos, Director, Industry Assessments, DPE. It assesses the social, environmental, and economic impacts of the Proposal and identifies mitigation measures to ensure sustainable development outcomes. The EIS aims to:

- Identify constraints influencing development on the Site;
- Evaluate environmental, social, and economic impacts of the Proposal; and
- Assess the Site's capability to accommodate the Facility.

The land is zoned E4 – General Industrial under the *Goulburn Mulwaree Local Environmental Plan 2009* (LEP), and the development footprint of the Site occurs entirely within this zoning. The Proposal is considered a type of “waste or resource management facility”, which is not prohibited in E4 zoning and is therefore permitted with consent.

The Proposal will receive up to 30,000 tonnes of scrap metal per annum and is located within the Sydney Drinking Water Catchment, triggering the requirement for Designated Development under Clause 45(4)(c) of Schedule 3 of the *Environmental Planning and Assessment Regulation 2021*.

Secretary's Environmental Assessment requirements (SEARs) requirements were issued on 13 November 2025 which are comprehensively addressed in this EIS. In addition, the Pre-lodgement Minutes (FWA/0042/2122, dated 24 February 2022) issued by Goulburn Mulwaree Council providing advice regarding assessment of the Proposal are also fully addressed in this EIS.

The Proposal is consistent with the definition of ‘Scrap metal processing’ as per Clause 26(1) of Schedule 1 of the *Protection of the Environment Operations Act 1997*: The Proposal will process less than 150 tonnes per day of scrap metal and less than 30,000 tonnes per year and is therefore under the thresholds for ‘Scrap metal processing’ provided in Schedule 1, Clause 26(2) of the *Protection of the Environment Operations Act 1997*, and therefore an Environment Protection Licence (EPL) is not required (as long as thresholds are not exceeded).

Sydney Metal Traders Pty Ltd is committed to achieving full regulatory compliance and obtaining all necessary development approvals and environmental licences prior to commencement.

Summary of the Environmental Assessment

Noise and Vibration Impact Assessment

A Noise and Vibration Impact Assessment prepared for this EIS has assessed potential construction and operational noise impacts using EPA guidelines and has found that predicted sound levels at surrounding receptors would comply with relevant noise and vibration criteria. Mitigation measures include acoustic barriers, restricted hours of operation, and use of low-noise equipment. Vibration impacts were assessed as negligible given the separation distances to sensitive receivers. Overall, the facility will operate within acceptable noise and vibration limits.

Wastewater Assessment

A Wastewater Management Report prepared for this EIS assessed the design and suitability of on-site wastewater systems for the proposed metal recycling facility. Given the lack of access to reticulated sewer infrastructure, the report proposed an advanced aerated wastewater treatment system and effluent disposal via sub-surface irrigation within landscaped areas. Hydraulic loading rates and soil permeability testing confirmed adequate treatment and disposal capacity for the Site's staff numbers and operational requirements. The proposed system complies with the NSW Health and Council On-site Sewage Management Guidelines and will ensure no adverse impact on groundwater or surface water quality.

Visual Impact Assessment and Landscaping

A Visual Impact Assessment prepared for this EIS assessed the visual character of the proposed facility and found that it will have a low visual impact due to its siting within an industrial zone, significant separation from residential areas, and inclusion of 20-metre-wide landscaped buffer. The design and landscape screening measures will effectively integrate the facility into the existing rural-industrial landscape.

Traffic and Parking Impact Assessment

A Traffic and Parking Impact Assessment prepared for this EIS evaluated existing and future road conditions and found that the proposed facility will generate a modest increase in vehicle movements, primarily heavy trucks, but will not have adverse impacts on existing traffic, parking conditions or access amenities of the area. The upgraded site access and exit points, together with intersection improvements, will ensure safe and efficient operation. The parking and access demand resulting from the Proposal can be easily accommodated within the proposed parking spaces and loading/unloading facilities. Compliant on-site parking and circulation have been designed and provided. The impacts on Murrays Flat Road and the Hume Highway network are considered acceptable and all matters and issues raised by Transport for NSW and in the SEARs have been resolved.

Stormwater Assessment

A Water Cycle Management Study prepared for this EIS modelled the stormwater quality and quantity using MUSIC software. Results show that the proposed system including sediment basins, oil-water separators, and biofiltration measures achieves a neutral or beneficial effect on downstream water quality in accordance with the relevant Water NSW and Council guidelines. The Facility also includes measures for groundwater protection using HDPE liners under operational areas. The study confirms the Proposal is compliant with the Neutral or Beneficial Effect (NorBE) requirements for the Sydney Drinking Water Catchment.

Geotechnical Assessment

The Geotechnical Investigation Report for the proposed Metal Recycling Facility at 88 Murrays Flat Road, Towrang NSW was prepared by Development Risk Management Pty Ltd (DRM) with investigations undertaken by Core Geotech Pty Ltd for Sincorp Properties Pty Ltd. The report assessed the site conditions, including soil, groundwater, earthworks, pavements and footing suitability, to determine whether the site can support the proposed recycling facility development. The investigation found that the site generally consists of reactive clay soils over weathered bedrock, with no significant slope instability or groundwater issues identified. Overall, the report concludes that the development is feasible from a geotechnical perspective provided appropriate earthworks, foundation design and erosion control measures are implemented during construction.

Air Quality Assessment

An Air Quality Assessment prepared for this EIS concluded that predicted emissions from shredding, cutting, and processing activities will comply with EPA criteria under normal and worst-case meteorological conditions. Dust

suppression, enclosure of emission sources, and stormwater controls will effectively mitigate potential impacts from particulate matter due to construction and operation of the Proposal. The assessment determined that the Proposal will not cause exceedances of ambient air quality goals at nearby sensitive receptors.

Preliminary Site Investigation

A Preliminary Site Investigation prepared for this EIS identified no evidence of significant contamination across the site. Soil and groundwater sampling confirmed that contamination levels are below guideline thresholds, indicating the land is suitable for the proposed industrial use. Recommendations included maintaining erosion and sediment controls during construction and proper management of fuels and oils to prevent future contamination during construction and operation of the Proposal.

Waste Management Plan

A Waste Management Plan (WMP) prepared for this EIS outlines measures for the avoidance, reuse, recycling, and lawful disposal of waste during construction and operation of the Proposal. Construction waste will be segregated on-site for resource recovery at nearby recycling facilities. The Proposal is predicted to achieve an estimated 99% recycling rate during construction. During operations, the Facility will receive up to 30,000 tonnes per annum of ferrous and non-ferrous metals, with recovered products sent off-site for further recycling. Residual floc and non-recyclable materials will be securely stored before lawful disposal at licensed facilities. Environmental controls to be implemented on-site include spill response systems, sealed surfaces, groundwater protection using HDPE liners under operational areas, stormwater treatment, and record-keeping protocols. The WMP demonstrates compliance with EPA and Council waste management standards and contributes to NSW Waste and Sustainable Materials Strategy 2041 objectives.

Fire Safety Study

A Fire Safety Study (FSS) prepared for the EIS in accordance with HIPAP No. 2 and FRNSW (2020) guidelines, assessed fire risks associated with metal storage and processing. The FSS concluded that the proposed design and fire protection measures will be sufficient to adequately manage risk and respond to potential incidents. The FSS recommendations include thermal detection for stockpiles, regular isolation valve testing, and operator fire training. Smoke or fire detection measures, fire hydrants, reels and extinguishers, separate firewater supply tanks, mandatory operator fire training and emergency response plans.

Bushfire Assessment

The Site lies partially within bushfire-prone land. A Bushfire Risk Assessment prepared for the EIS evaluated the Proposal's compliance against *Planning for Bushfire Protection* (2019) and determined that the overall bushfire risk is low due to the separation distance between operational areas and hazard vegetation, existing cleared buffers, and proposed on-site firefighting infrastructure. An asset risk register has been developed along with measures to maintain asset protection zones, ensure adequate water supply and firefighting infrastructure is available at all times. The Proposal will ensure that adequate staff resources are on site to help suppress small fires and undertake some additional preparations during extreme to catastrophic fire weather conditions (e.g. no hot-works).

Aboriginal Heritage Assessment

An Aboriginal Heritage Assessment prepared for the EIS concluded that no known Aboriginal sites or objects occur within the Proposal area and the likelihood of encountering intact cultural deposits is low and no further archaeological investigation or AHIP is required prior to works. The due diligence process was conducted in accordance with the NPW Act 1974 and the Due Diligence Code of Practice (2010).

Biodiversity Assessment

The Biodiversity Assessment prepared by Hayes Environmental determined that the site is predominantly comprised of modified exotic pasture with only small areas of native vegetation present, including isolated trees and small patches of native grassland associated with PCT 3373 Goulburn Tableland Box-Gum Grassy Forest, which is linked to the critically endangered White Box – Yellow Box – Blakely's Red Gum Grassy Woodland ecological community under the NSW Biodiversity Conservation Act 2016. The proposed development will require only a small amount of vegetation clearing (approximately 0.16ha), with the design seeking to retain native trees where practical. The assessment concluded that no threatened flora or fauna species are likely to be significantly impacted by the development and that impacts can be effectively managed through mitigation measures including vegetation retention, erosion and sediment controls, and landscaping. Importantly, the Biodiversity Offset Scheme

does not apply to the proposal, a Biodiversity Development Assessment Report (BDAR) is not required, and biodiversity offsets are not triggered.

Energy Assessment SEPP (Sustainable Buildings) 2022

A Sustainability Assessment prepared for the EIS demonstrates compliance with Section 3.2 of the *State Environmental Planning Policy (Sustainable Buildings) 2022* for the Proposal. The design integrates energy-efficient equipment, renewable energy opportunities, water-saving fixtures, stormwater capture and reuse, and construction waste minimisation strategies. The Facility's operations and layout promote reduced energy demand, sustainable material use, and responsible management of embodied emissions, aligning with State sustainability targets.

SEPP (Resilience and Hazards) Assessment

An assessment in accordance with Chapter 3 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* has been prepared for this EIS to review the Facility's operations and storage of materials. The study determined that none of the Site's processes or storage activities meet the thresholds for classification as "potentially hazardous" or "offensive" development. Accordingly, the Proposal does not require a Preliminary Hazard Analysis under HIPAP No. 6. The assessment concluded that the Facility poses negligible off-site risk to people, property, or the environment and is suitable for construction and operation.

Flood Study

A Local Flood and Overland Flow Study prepared for the EIS modelled 10%, 5%, and 1% AEP rainfall events to assess flood behaviour on the Site. The Site falls within Flood Planning Constraint Category 4 (FPCC4), indicating low flood risk and minimal restrictions for industrial development. The Site is partly affected by probable maximum flood extents of the Wollondilly River but lies outside the 1% AEP flood planning area. The study demonstrated that the Proposal would not exacerbate flood impacts on surrounding properties and may slightly reduce peak flow rates through improved drainage design.

Conclusion

Sydney Metal Traders Pty Ltd are seeking approval for a proposed metal recycling facility that involves the receipt, sorting, cutting, shredding, and bulk transport of scrap metals for recycling into new products. The Proposal is a well-designed, environmentally responsible, and economically beneficial development that aligns with regional planning objectives and State policy directions.

The Proposal represents a significant investment in regional waste management infrastructure, providing long-term environmental, economic, and operational benefits for the Goulburn Mulwaree LGA and the broader Southern Tablelands region. The Proposal supports the circular economy by enabling the recovery, sorting, and recycling of ferrous and non-ferrous metals, thereby diverting waste from landfill and contributing to state and national waste reduction targets.

By establishing a dedicated metal recycling operation in Towrang, it will reduce the need to transport recyclable materials to metropolitan Sydney for processing, lowering associated freight costs, travel emissions, and vehicle kilometres travelled. This contributes to a reduction in overall greenhouse gas emissions consistent with the objectives of the *NSW Waste and Sustainable Materials Strategy 2041* and the *EPA Strategic Plan 2024–29*, which prioritise regional waste processing capacity and the recovery of valuable resources close to source.

The development represents an estimated \$26,994,466 (ex. GST) capital investment, supporting approximately 10 jobs during the construction phase over a 6-month period, and generating 15 new ongoing operational roles upon completion. This will provide direct employment opportunities for local residents and generate indirect benefits through local supply chains, maintenance services, and transport operators. The Proposal will therefore make a measurable contribution to the local and regional economy, supporting economic resilience and growth within the Southern Tablelands.

The Proposal also includes stormwater management infrastructure such as detention and sediment basins and grassed swales to ensure runoff is effectively controlled and treated prior to discharge. Groundwater is also protected via a proposed HDPE lining under operational areas. These features support improved water quality outcomes and contribute to the ecological sustainability of the Site whilst meeting Water NSW requirements for Neutral or Beneficial Effect within the Sydney Drinking Water Catchment.

The Proposal supports the *Goulburn Mulwaree Local Environmental Plan 2009* objectives for the E4 General Industrial zone, which encourages the establishment of industries that support employment, are compatible with

adjoining land uses, and do not adversely affect the amenity of surrounding areas. The Proposal also aligns with the objectives of the *NSW Waste and Sustainable Materials Strategy 2041* to increase recycling rates, promote resource recovery, and strengthen regional waste infrastructure capacity.

If approved, the Proposal will represent an important piece of regional infrastructure supporting a circular economy approach to waste management. It will deliver long-term environmental benefits, provide new employment opportunities, strengthen the local economy, and ensure the sustainable recovery of valuable materials within the Southern Tablelands region.

With the implementation of the identified mitigation and management measures, the Proposal is recommended for approval.

Appendix 1 - Architectural Plans Set

Appendix 2 – Community and Stakeholder Consultation Report

Appendix 3 – Noise and Vibration Impact Assessment

Appendix 4 – Wastewater Assessment

Appendix 5 – Landscape Concept Plan

Appendix 6 – Visual Impact Assessment

Appendix 7 – Traffic Impact Assessment

Appendix 8 – Water Cycle Management Study

Appendix 9 – Air Quality Assessment

Appendix 10 – Preliminary Site Investigation

Appendix 11 – Waste Management Plan

Appendix 12 – Fire Safety Study

Appendix 13 – Bushfire Assessment

Appendix 14 – Aboriginal Heritage Assessment

Appendix 15 – Flora and Fauna Assessment

Appendix 16 – Energy assessment (SEPP Sustainable Buildings) 2022

Appendix 17 – Hazard Risk Assessment

Appendix 18 – Flood Study

Appendix 19 – Estimated Development Cost

Appendix 20 – Operational Environmental Management Plan

Appendix 21 – Planning Certificate

Appendix 22 – Owners Consent

Appendix 23 – Goulburn Murlaree Council Pre – lodgement Notes

Appendix 24 – SEARs Requirements

Appendix 25 – Geotechnical Report

Appendix 26 – MUSIC Model