

Environmental Impact Statement

109A Church Street, Lidcombe – Organics Transfer Station

A Submission to Cumberland Council

9th March 2023



Environmental Impact Statement: 109a Church Street, Lidcombe – Organics Transfer Station

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Prepared by

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Version History

Ver	Date	Status	Author	Approver
0.1	20/01/2021	Draft	Louisa McMullan / Jake Stanaway-Dowse	James Cosgrove
0.2	24/01/2023	Review	James Cosgrove	-
1	09/03/2023	Final	Jake Stanaway-Dowse	James Cosgrove

Disclaimer

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Acknowledgements

MRA would like to acknowledge the assistance with preparation of this report provided by Fuse Architects, The Odour Unit, Pulse White Noise Acoustics, Zait Engineering Solutions, EB Traffic Solutions, Section 94 and Foundations Earth Sciences.

Declaration

Pursuant to Schedule 2, Part 3, clause 6(f), of the *Environmental Planning and Assessment Regulation 2000*, I declare that this Environmental Impact Statement (EIS):

- Has been prepared in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000; and
- Contains all available information relevant to the environmental assessment of the development to which this EIS relates; and
- Contains information that is neither false nor misleading.

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Executive Summary

Introduction

This report has been prepared as an Environmental Impact Statement (EIS) for the proposed development of an Organics Transfer Station (OTS) located at an industrial site in Lidcombe, in Sydney's central west. The proposed facility would be capable of receiving up to 80,000 tonnes of domestic and commercial derived food organic and garden organic (FOGO) waste for bulking and transfer offsite for secondary processing.

Background

MRA Consulting Group is submitting this EIS as the applicant on behalf of the land owner – M.A Investments (AUST) Pty Ltd. MRA is an Australian waste, sustainability and environmental consulting business that has operated for 10+ years across the Country.

MRA and the land owner have undertaken detailed market analyses and have identified an opportunity in the waste and recycling industry to provide organic waste transfer capacity for local councils and businesses, given the upcoming changes around the collection and use of mixed organic waste outputs, increasing pressure from the public and government to achieve high rates of recycling and landfill diversion, and increasing awareness around food waste management.

The Proposal

The proponent intends to establish an Organics Transfer Station (OTS) at the proposed development site. The location of the proposed facility is 109A Church Street, Lidcombe and is formally identified as Lot 1 in DP778492 in the Cumberland Local Environmental Plan (CLEP, 2021). The site is currently minimally utilised for the purpose of truck parking. Truck parking would cease once the proposed development is approved and constructed for use as an organic waste transfer station.

The objectives of the proposal are to:

- Change of use of the site to an OTS capable of processing 80,000tpa of mixed domestic and commercial FOGO streams;
- Construct site infrastructure needed to support the proposal including main industrial shed, administration and office attachment, internal access, two weighbridges, odour management system, parking and hardstand, stormwater infrastructure, fencing, landscaping; and
- Provide a viable transfer option for FOGO material for Sydney council areas.

The proposed processing facility would receive up to 80,000 tpa of food and garden organic waste from a mix of council and commercial clients. Waste received onsite would typically contain:

- Food scraps;
- Non-woody garden waste; and
- Residual non-recyclable contaminants.

Loading, unloading and operations at the processing facility would be conducted entirely indoors to avoid excessive odour, dust and noise escaping from the site and impacting nearby sensitive receptors.

Equipment and machinery onsite would be limited to a front-end loader to load materials from the designated material storage area into articulated Vehicle (AV) for the transfer of material offsite. Incoming trucks would include a range of council and private contractor waste collection vehicles, in addition to larger transfer vehicles (up to AV) for the offtake of materials.

Statutory Context

The scale of proposed waste storage (80,000 tpa) and proximity to a residential zone and dwellings triggers Designated Development under Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*. Accordingly, the proposed development requires the preparation of an Environmental

Impact Statement (EIS) in accordance with Secretary's Environmental Assessment Requirements (SEARs).

The development would also require a licence under the Protection of the Environment Operations Act (PoEO Act) as it would store more than 6,000tpa of general waste.

The site is located in land zoned IN1 – General Industrial under the Cumberland Local Environmental Plan (CLEP) 2010. Waste management and resource recovery facilities are permitted with consent in this zone type. Additionally, under the *State Environmental Planning Policy (Transport and Infrastructure) 2021*, waste management facilities are permitted with consent in prescribed zones (IN1 – General Industrial is classified as a prescribed zone).

The project's compliance with the Cumberland Local Environmental Plan and the Cumberland Development Control Plan would be included in the EIS.

Strategic Context

The proposal to develop an OTS would provide a suitable transfer option for future organics collection markets from domestic kerbside food and garden bins. This development is consistent with the Waste and Sustainable Materials Strategy (WSMS) 2021 as it would provide necessary infrastructure to divert recyclable material from landfill, thereby assisting in the progression toward the target of increasing recycling to 70%.

Additionally, the banning of municipal waste organic output (MWOO) in NSW means that domestic food waste is currently largely uncaptured in NSW, with Councils and state government currently reviewing options with the view to identify opportunity to transition to FOGO processing or alternative options to capture domestic food waste for recycling.

Options Analysis

Several options were considered when developing the project proposal, summarised as follows and outlined further in this report:

Option 1: Business as Usual (BAU)

Under BAU Scenario, the site would not be developed to receive or transfer FOGO waste and the use would remain as approved for general warehousing and storage.

This option would prevent establishing an OTS and would not contribute towards strategic targets for resource recovery and diversion from landfill. Food and organics waste from the region would continue to be landfilled at an economic and environmental cost, and the social benefit from providing up to 14 jobs to the local economy would not be realised.

Option 2: Process 80,000 tpa of mixed FOGO and commercial food at the 109a Church Street, Lidcombe site

This option involves developing the site at 109a Church Street, Lidcombe, into an OTS capable of receiving and transferring 80,000 tpa of domestic kerbside and commercial derived organics waste. The site is suitable for such a use, based on the ability of the site to handle materials at the that throughput quantity and the ability to obtain consent within the IN1 General Industrial zone.

Option 3: Process <80,000 tpa of mixed FOGO and commercial food at the 109a Church Street, Lidcombe site

An alternative option was considered that brought transfer operations at the site to a scale threshold considerably less than 80,000 tpa (20,000 tpa for example). This would require a similar level of assessment given the elected material types under the requirements of Designated Development, and the Cumberland Local Planning Panel would remain the consenting authority. 20,000 tpa would not provide the scale required to effectively service the surrounding local government areas, or to adequately provide a return on the investment in site infrastructure.

Option 4: Alternative site

This option would require an additional site search, with associated time and financial costs. The site is already owned and the landowner is committed to developing the site for the purpose of an OTS. The owner of the proposed development site at Lidcombe and would be impacted financially if an alternative site were pursued as there has been substantial investment of time and resources to pursue the OTS proposal.

Preferred option

Of the options presented, Option 1 is preferred due to the increased potential to capture a substantial volume of organics waste from the surrounding region for transfer to suitable processing facilities for recovery. The site is suitably geographically located in relation to feedstock generation and offtake opportunities. Option 1 would indirectly contribute towards the state's recycling targets through the provision of viable local transfer options.

Potential Environmental Impacts and Controls

Construction works and ongoing operation of the proposed OTS may see impacts realised by neighbouring properties and environmental surrounds in the following aspects:

- The site is not located nearby any water systems. Materials would not be stored where there is potential for leachate to enter stormwater or groundwater. The materials receiveal area would be designed so that any leachate is captured and may either be inserted back into the wet scrubber or captured for collection.
- Only source separated food and garden organic waste from domestic and commercial sources would be accepted at the transfer station. Other types of waste material would not be accepted at the site.
- The proposed development is located nearby residential zones and dwellings, however operations at the site would be restricted to typical daytime hours with limited operation in the evening period. Background noise levels are already elevated due to the adjacent train line which would also buffer the site from sensitive receivers in relation to noise. Noise generated during construction and operation phases is not expected to cause amenity issues.
- Fires are known to occur at waste management facilities. Mitigation measures, such as a fire suppression system and back to base monitoring would be implemented, in accordance with Building Code of Australia (BCA) and NSW Fire and Rescue guidelines for Fire Safety in Waste Facilities.
- The site is expected to receive up to 59 trucks per day for receiveal and offtake of organic material. Conservatively, the site would have approximately 8 trucks per hour or one truck every 7.5 minutes. Access is provided via Church Street. The site is able to accommodate trucks entering and exiting in a forward-facing direction with minimal traffic conflicts via separate entry and exit points.
- Parking for staff and visitors would be provided onsite.
- Excavation may be required as part of this proposal for the installation of two weighbridges and for site preparation for the proposed construction of the main industrial building. The site is identified as Class 5 acid sulphate soils, and therefore no soil contamination issues are likely to occur.
- Minor emissions to air may occur from vehicles or front-end loader onsite. Standard management measures and the dispersion of pollutants would be able to mitigate risk.
- The storage of mixed-organic waste is likely to be odorous due to the nature of materials. The proposed storage area would be entirely enclosed in an industrial shed, maintain a best practice odour management system and utilise a number of odour control measures.

- The site is situated north of the Rookwood Cemetery and Necropolis, across railway tracks. Rookwood Cemetery is identified on the State Heritage Register as a site of heritage significance (Listing #00718).
- The site is not in flood impact risk area according to Cumberland Council flood mapping.
- There are minimal anticipated environmental impacts associated with bushfire, biodiversity, and visual amenity due to the industrial location and pre-developed nature of the site.

Conclusion

The project is aligned with NSW EPA's Strategic Plan and national waste policy, and would result in a facility capable of managing 80,000 tpa of mixed organic material being sorted and transferred offsite for further processing at organic processing and composting facilities outside of the Sydney Metropolitan Area (SMA). The project would provide a suitable FOGO material transfer options for Sydney based Councils, which is a key limitation for many Councils at present when considering the uptake of a FOGO service. The site would also provide similar opportunities to commercial contractors and businesses that generate large amounts of food waste (such as restaurants, cafes and green grocers). Overall, the proposal would contribute towards the State's shift to a Circular Economy, linking waste generators and collection with processors, and would provide employment opportunities by creating 10 short term jobs and up to 4 skilled operational jobs.

Food and garden waste represents a substantial proportion of Municipal Solid Waste (MSW) and Commercial & Industrial (C&I) waste currently disposed of to landfill. This proposal aims to bridge the gap between waste generators and processors, providing a suitable transport hub for organic material between the central Sydney region and processors located on the extremities and outside of the SMA.

The site is well located to receive MSW and C&I organic waste from Sydney councils and thereby minimise the cost and environmental impacts of transporting this material. The facility is on appropriately zoned industrial land and is not expected to impact on the surrounding neighbourhood.

The project is justified socially (by new job creation), environmentally (by ongoing and sustainable management of waste), and economically (by supporting diversion of waste from landfill). It aligns with current and future land use for the surrounding area and with the aims and objectives of the WSMS Strategy.

Glossary

Terminology	Definition
ASS	Acid Sulfate Soils
AV	Articulated Vehicle
BAU	Business as usual
BCA	Building Code of Australia
C&D	Construction and Demolition Waste
C&I	Commercial and Industrial Waste
CIV	Capital Investment Value
CLEP	Cumberland Local Environmental Plan 2021
dB(A)	Weighted decibel level
DCP or CDCP	Development Control Plan or Cumberland Development Control Plan (2021)
DPI	Department of Primary Industries
DPIE	Department of Planning, Industry and Environment (NSW)
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPA	Environmental Protection Agency (NSW)
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
FMS	Fire Management Strategy
FOGO	Food Organic and Garden Organic Waste
FTE	Full-Time Equivalent
HVRRR	Hydro Vac Recycling and Resource Recovery
IN1	IN1 - General Industrial Zone (from Cumberland Local Environmental Plan)
ISEPP	State Environmental Planning Policy (Infrastructure) 2007

Terminology	Definition
L_{Aeq}	A-weighted, equivalent continuous sound level in decibels measured over a stated period of time.
L_{Aeq 15 Min}	A-weighted, equivalent continuous sound level in decibels measured over a 15-minute period.
L_{Aeq 1 Hour}	A-weighted, equivalent continuous sound level in decibels measured over a 1-hour period.
LEP or CLEP	Local Environmental Plan or Cumberland Local Environmental Plan 2021
LGA	Local Government Area
MRA	Mike Ritchie and Associates Pty Ltd (T/A MRA Consulting Group)
MSW	Municipal Solid Waste
MWOO	Municipal Waste Organic Output
NATA	National Association of Testing Authorities
OEH	Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
PASS	Potential Acid Sulfate Soils
PIRMP	Pollution Incident Response Management Plan
PoEO Act	Protection of the Environment Operations Act 1997
PoEO Regulation	Protection of the Environment Operations (Waste) Regulation 2014
RFS	Rural Fire Service
RMS	Roads and Maritime Services (now part of Transport for NSW, TfNSW)
RRE	Resource Recovery Exemption <i>Resource recovery exemptions contain the conditions which consumers must meet to use waste for the purposes described. These conditions may include requirements on how to re-use or apply the waste, as well as record-keeping, reporting and other requirements. All resource recovery exemptions are made under clauses 91 and 92 of the 2014 Waste Regulation.</i>
RRO	Resource Recovery Order <i>Resource recovery orders include conditions which generators and processors of waste must meet to supply the waste material for the purposes described. These conditions may include material specifications, processing specifications, record-keeping, reporting and other requirements. All resource recovery orders are made under clause 93 of the 2014 Waste Regulation.</i>

Terminology	Definition
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SMA	Sydney Metropolitan Area
TfNSW	Transport for New South Wales
WSMS	Waste and Sustainable Materials Strategy 2041

1 Introduction

1.1 Overview

A key strategic action for resource recovery in NSW is to implement the recycling of food and garden organics. Hence, a need for an organic waste transfer station (hereafter referred to as “Organics Transfer Station” or OTS) to consolidate materials has been identified. An OTS would assist NSW in achieving high rates of recycling and landfill diversion by supporting the transfer of food waste from councils and businesses.

The proposed development is for a facility capable of receiving up to 80,000 tonnes of domestic and commercial derived food organic and garden organic (FOGO) waste for bulking and transfer offsite for secondary processing.

1.2 Objectives

The main objective for this proposal is to develop an organics waste transfer station capable of processing 80,000tpa of mixed domestic and commercial FOGO streams.

The second objective is to amend site infrastructure needed to support the proposal including main industrial shed, administration and office attachment, internal access, two weighbridges, odour management system parking and hardstand, stormwater infrastructure, fencing and landscaping.

The third objective is to provide a viable transfer option for FOGO material for Sydney areas.

1.3 Consents and Licenses

1.3.1 Summary of Current Approvals and Licenses

Development Consent DA-157/2011

The site holds a current approval for the purpose of general warehousing and storage under DA-157/2011 (see existing consent details as Appendix A and existing site surveys as Appendix B).

Previous approvals history for the site include consents as follows:

- DA-535/2004 – for demolition of two older style industrial type buildings.
- DA-96/87 – Use of an existing industrial building for the storage, distribution and trade sale of signwriting supplies.
- DA-145/79 – use of existing offices and warehouse buildings for the purpose of storage and distribution of floor tiles to wholesale customers.
- Earlier approvals for the site are unknown and have not been able to be obtained through a Government Information Public Access (GIPA) request with Council.

The site is currently being utilised within the limits of the existing consent. A copy of the consent Determination Notice is available in Appendix A.

Environmental Protection Licence

The site does not hold a Environment Protection Licence (EPL) as the previous use was not a scheduled activity under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act).

1.3.2 Summary of Approval Requirements for the Proposal

Development Consent

A development consent for the proposed activities is required under the *Environmental Planning and Assessment Act 1979*. Based on the proposed processing capacity for the proposed development of

80,000 tpa, the proposed development requires approval in accordance with Clause 32 (Waste Management Facilities or Works), Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*:

- (1) *Waste management facilities or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and–*
 - (b) *that sort, consolidate or temporarily store waste at transfer stations or materials recycling facilities for transfer to another site for final disposal, permanent storage, reprocessing, recycling, use or reuse and–*
 - (ii) *that have an intended handling capacity of more than 10,000 tonnes per year of waste containing food or livestock, agricultural or food processing industries waste or similar substances.*

Environmental Protection License (EPL)

Licensing is required under the Protection of the Environment Operations Act 1997 for:

Waste processing – non thermal treatment of general waste at more than 1,000 tonnes or 1,000 cubic metres at any one time or the processing of more than 6,000 tonnes of waste per annum

Waste storage – storage of more than 1,000 tonnes or 1,000 cubic metres at any one time or the receipt of more than 6,000 tonnes of waste per annum

A new licence would be required for waste processing and waste storage of up to 80,000 tpa of general waste. An application for an Environmental Protection License (EPL) would be submitted to the NSW EPA to permit the activities. The licence application would be made after development consent has been granted.

1.4 Cost of Development

The proposed development is expected to cost **\$4,950,302.85** excl GST (\$5,445,333.14 incl GST) according to the quantity surveyor cost report prepared by Section 94 (see Appendix C), which includes the following works and infrastructure:

- Industrial warehouse building;
- Ancillary administration and end of trip facilities;
- Internal roadworks, driveways and parking area;
- Odour management system;
- Operational equipment (excavator, weighbridges, monitoring equipment, etc); and
- Landscaping.

1.5 Background

1.5.1 State and National Context

Resource recovery targets established under the NSW Waste And Sustainable Materials Strategy 2041, together with increasing levies waste disposed to landfill (under Section 88 of the Protection of the Environment Operation Act 1997 (PoEO Act) are providing incentives for local governments, businesses and industry to reduce waste sent to landfill and increase their levels of resource recovery.

The proposal aligns with State and National objectives to reduce waste to landfill and establish a circular economy. The proposal would facilitate the effective transfer of up to 80,000 tonnes of organic waste to suitable processing and resource recovery activities on the fringes and outside of the SMA.

1.5.2 Local Context

The proposed development site is identified as follows –

Address: 109A Church Street, Lidcombe

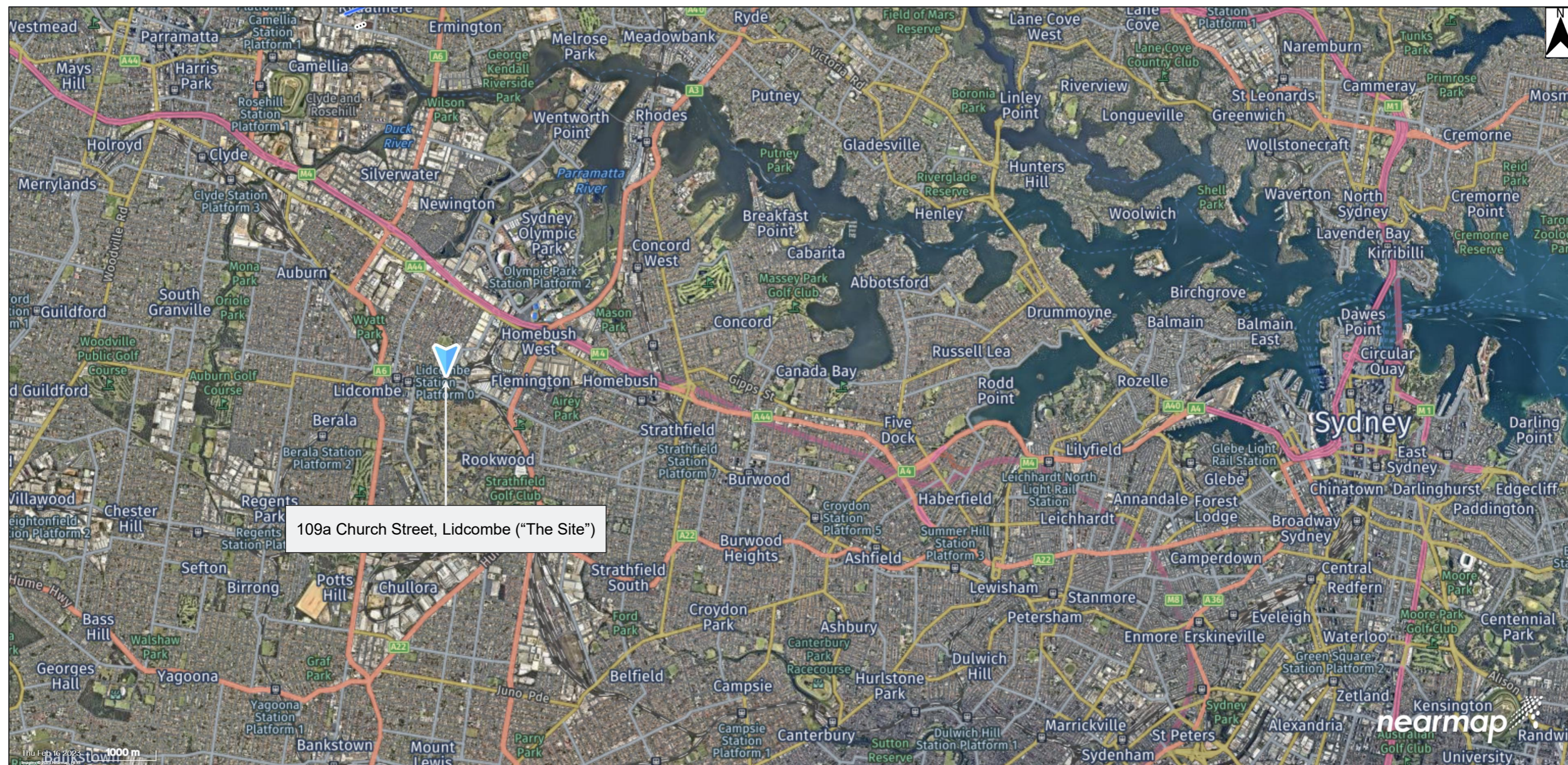
Lot: Lot 1, DP 778492

LGA: Cumberland Council

Zoning: General Industrial (IN1)

The site is located approximately 14km west of the Sydney CBD in the Cumberland Council LGA. The site is proximal to arterial roads and within an industrial zoned land use. Access to the site is via arterial roads. The nearest waterway is Haslam Creek which runs through Rookwood Cemetery to the south (see Figure 2). The locality is characterised by industrial use to the east and north-east, rail infrastructure immediately north, residential premises further to the north, mixed business and residential to the west and a cemetery to the south. The site is central to the Sydney region, and can be effectively utilised for drop off of FOGO materials.

Figure 1: Aerial image of the site location in the SMA



Source: Nearmap, 2023.

1.5.3 Secretary’s Environmental Assessment Requirements (SEARs) and Pre-DA Consultation

The Secretary’s Environmental Assessment Requirements (SEARs) for this EIS were received in August 2021 and are outlined in Table 1. The NSW Department of Planning, Industry and the Environment, NSW EPA, Transport for NSW, Water NSW, and the Department’s Environment, Energy and Science (EES) Group have provided their specific requirements for this development.

A full copy of the SEARs and other government agency responses are included as Appendix D.

Furthermore, consultation with Cumberland Council was also undertaken via a pre-DA meeting to which this EIS also responds (pre-DA meeting minutes are provided as Appendix E).

Table 1: Secretary’s Environmental Assessment Requirements (SEARs) for this EIS

Key Issues
<p>Strategic and statutory context – including:</p> <ul style="list-style-type: none"> • A detailed justification for the proposal and suitability of the site for the development; • A demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies; • A list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out.
<p>Suitability of the site – including:</p> <ul style="list-style-type: none"> • A detailed justification that the site can accommodate the proposed processing capacity, having regard to the scope of the operations and its environmental impacts and relevant mitigation measures; • A detailed justification that the chosen site is appropriate, taking into account proximity to residential receivers • Floor plans depicting and proposed internal layout, including the location of machinery, equipment and stockpiles.
<p>Waste management – including:</p> <ul style="list-style-type: none"> • 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 proposed development is consistent with the aims, objectives and guidelines in the NSW Waste and Sustainable Materials Strategy 2041.
<p>Air quality and odour – including:</p> <ul style="list-style-type: none"> • 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 and odour impact mitigation and monitoring measures, in line with International Best Practice; and
- demonstrating how site operations will mitigate and manage odour.

Noise and vibration – including:

- A description of all potential noise and vibration sources during construction and operation, including road traffic noise and noise from vehicles entering, leaving, and moving within the site;
- A noise and vibration assessment in accordance with the relevant Environment Protection Authority guidelines; and
- A description and appraisal of noise and vibration mitigation and monitoring measures.

Hazards and risk – including:

- A preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development 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 Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011); and
- Consideration of potential impacts on rail infrastructure in accordance with State Environmental Planning Policy (Infrastructure) 2007.

Fire and incident management – including:

- 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 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; and
- 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 Fire Safety in Waste Facilities dated 27 February 2020.

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 Water Act 1912 and/or the Water Management Act 2000
- An assessment of potential impacts on floodplain and stormwater management and any impact to flooding in the catchment
- Details of sediment and erosion controls
- A detailed site water balance
- An assessment in accordance with ASSMAC Guidelines for the presence and extent of acid sulfate soils (ASS) and potential acid sulfate soils (PASS) on the site and, where relevant, appropriate mitigation measures

- An assessment of potential impacts on the quality and quantity of surface and groundwater resources
- Details of the proposed stormwater and wastewater management systems (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts.
- Characterisation of the nature and extent of any contamination on the site and surrounding area including an assessment against the provisions of SEPP 55; and
- A description and appraisal of impact mitigation and monitoring measures.

Traffic and transport – including:

- Details of road transport routes and access to the site;
- Road traffic predictions for the development during construction and operation;
- Swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site;
- An assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development; and
- Details of the proposed site access and the parking provisions associated with the proposed development including compliance with the requirements of the relevant Australian carparking standards.

Biodiversity – including:

- A description of any potential vegetation clearing needed to undertake the proposal and any impacts on flora and fauna.

Visual – including:

- an impact assessment at private receptors and public vantage points.

Heritage – including:

- an assessment of Aboriginal and non-Aboriginal cultural heritage

Environmental Planning Instruments and other policies

The EIS must assess the proposal against the relevant environmental planning instruments, policies and guidelines, including but not limited to:

- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017;
- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;
- State Environmental Planning Policy No. 55 – Remediation of Land;
- Cumberland Local Environmental Plan 2021;
- relevant development control plans and section 7.11 plans.

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.

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 that may be raised in the EIS. In particular, you should consult with the:

- Department of Planning, Industry and Environment, specifically the:
 - Environment Protection Authority;
- Transport for NSW;
- Fire & Rescue NSW
- Sydney Water
- Metropolitan Local Aboriginal Land Council
- Cumberland City 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.

Further consultation after 2 years

If you do not lodge an application under Section 4.12(8) of the *Environmental Planning and Assessment Act 1979* 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.

2 The Proposal

2.1 Introduction

M.A Investments (AUST) Pty Ltd purchased 109A Church Street, Lidcombe (the Site), legally known as Lot 1 in DP 778492 in the Cumberland Local Environmental Plan (CLEP, 2021). The Site is the subject of this EIS proposal to receive up to 80,000 tonnes of domestic and commercial derived food organic and garden organic (FOGO) waste. This waste would then be bulked and transferred offsite for secondary processing.

2.2 The Proponent

MRA Consulting Group is submitting this EIS as the applicant on behalf of the land owner. MRA is an Australian waste, sustainability and environmental consulting business that has operated for 10+ years across Australia.

MRA and the land owner have undertaken detailed market analyses and have identified an opportunity in the waste and recycling industry to provide organic waste transfer capacity for local councils and businesses, given the upcoming changes around the collection and use of mixed organic waste outputs, increasing pressure from the public and government to achieve high rates of recycling and landfill diversion, and increasing awareness around food waste management.

The proponent has identified the establishment of an OTS as an opportunity to fill a void in the waste and recycling market for a viable transfer option for emerging organics collection and recycling markets. At present, a limited number of Sydney councils have a food and garden organics collections, either in trial or full service. Whilst the majority of Sydney councils have a garden waste bin, food waste has limited options under current service arrangements.

Key limitations for the widespread introduction of food waste collection services for Councils is the availability of suitably located facilities to take mixed food and garden waste. Food and garden waste processing/composting facilities are typically located outside of the SMA or on the fringes of Sydney, given the space requirements for composting and potential impacts on the suburban landscape. An OTS station situated in the central west of Sydney would provide a strategically located transfer option for many of the surrounding councils, providing incentive to uptake food waste collection services.

The proponent intends to establish the Lidcombe OTS at the subject site to address the current gap in infrastructure.

2.3 The Site

2.3.1 Site Location

The site for this proposal is 109A Church Street, Lidcombe, NSW and is situated in a General Industrial (IN1) zone, legally known as Lot 1 in DP 778492 in the Cumberland Local Environmental Plan (CLEP, 2021).

The site is situated near the Sydney Trains Flemington Maintenance Centre and the locality is surrounded by rail infrastructure. Access is provided via Church St to the south, and the site is neighboured by a CHEP pallet distribution facility to the East.

Church Street is connected to the Western Motorway via Centenary Drive.

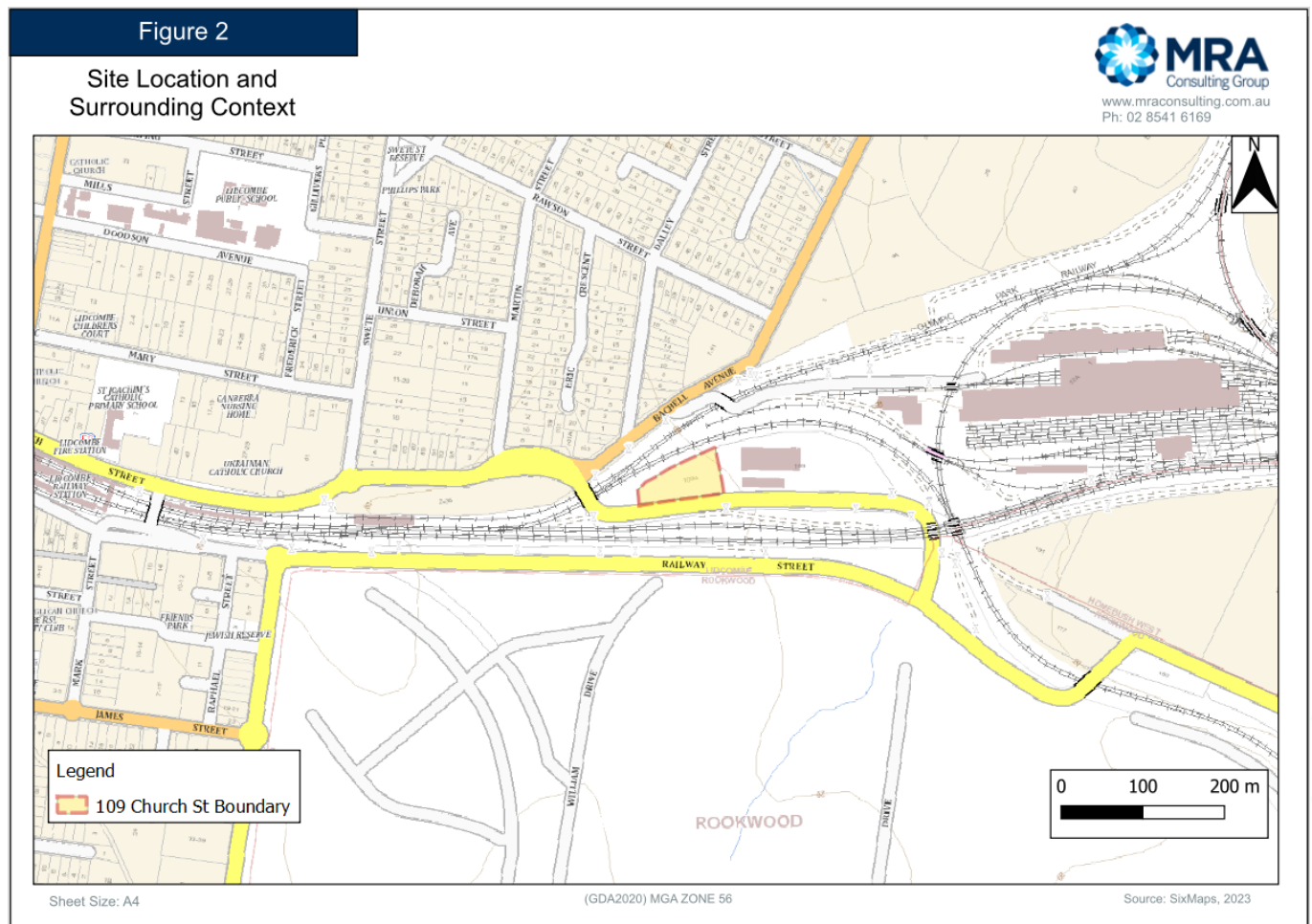
The proposed development site is bordered by rail lines to the north and west, a pallet manufacturing/distribution centre to the East and Rookwood Cemetery further to the south, on the other side of Church Street. The site is located in the vicinity of residential zones situated to the north and west of the site. The following business types are located near the proposed facility:

- Flemington Maintenance Centre (Train maintenance); and
- CHEP pallet distribution facility.

Further to the above, Rookwood General Cemetery is located on the opposite side of Church Street to the South of the site.

The site is located approximately 14km west of the Sydney CBD in the Cumberland Council LGA. The site is proximal to arterial roads and within an industrial zoned land use. The nearest waterway is Haslam Creek which runs through Rookwood Cemetery to the south (see Figure 2).

Figure 2: Site location and surrounding context.



Source: Six Maps; 2023.

2.3.2 Site History

The site holds a current approval for the purpose of general warehousing and storage under DA-157/2011. Previous approvals history for the site include consents as follows:

- DA-535/2004 – for demolition of two older style industrial type buildings.

- DA-145/79 – use of existing offices and warehouse buildings for the purpose of storage and distribution of floor tiles to wholesale customers. Nearby residential receptors
- Earlier approvals for the site are unknown and have not been able to be obtained through a Government Information Public Access (GIPA) request with Council.

2.3.3 Current Use

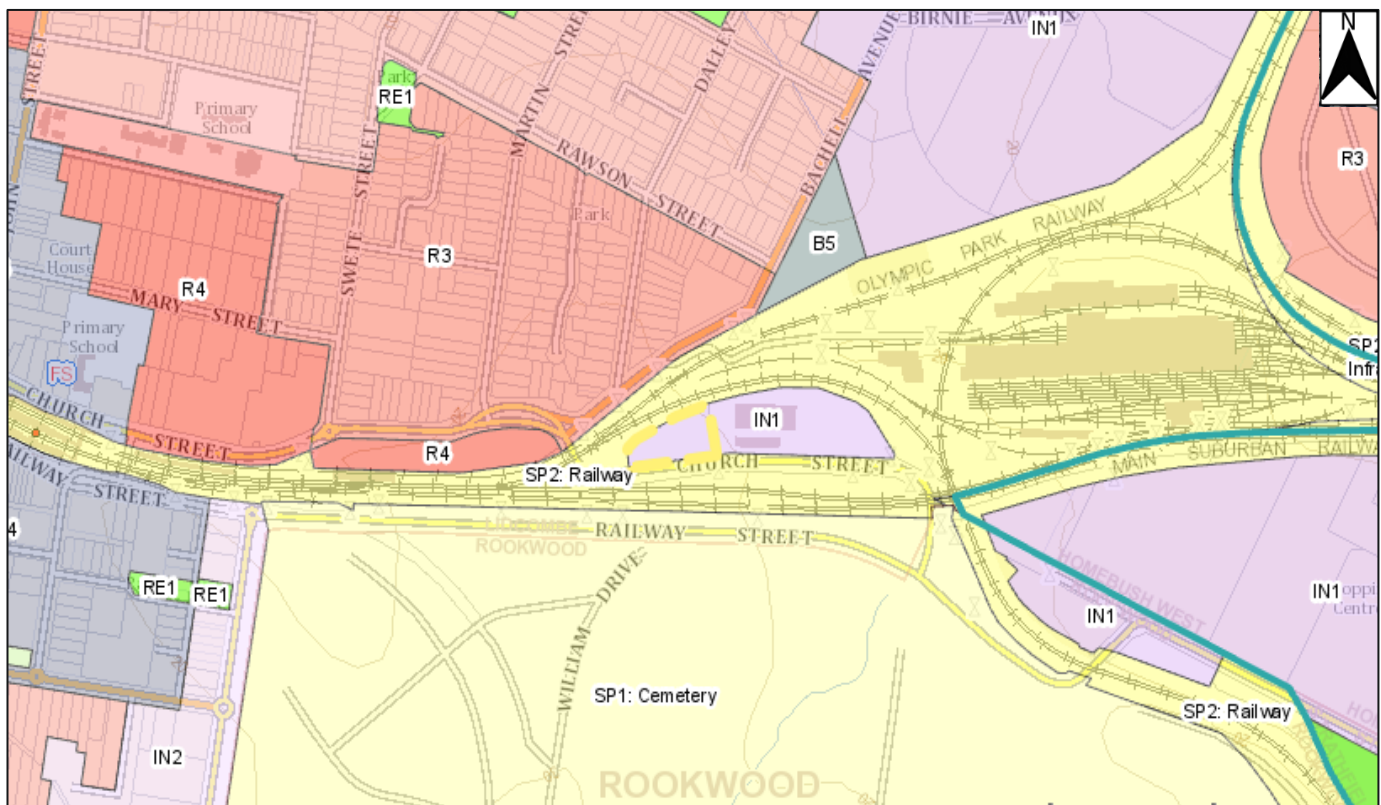
The site has been previously utilised for various general industrial purposes. At present, the site is used for parking heavy vehicles and storage of general maintenance equipment. The site is approximately 4,457m² in size and currently has two small industrial sheds and open areas of hardstand (see Figure 1).

The current use is for the purpose approved under DA 157/2011. The site is currently being utilised within the limits of the existing consent.

2.3.4 Zoning

The site is located in an area of industrially zoned land (IN1 – General Industrial) and is surrounded by rail corridors. Beyond the rail corridor are industrial, infrastructure and residential zones as outlined in 2.4 and shown in Figure 3.

Figure 3: Zone Map of Site and Surrounds



Source: NSW ePlanning Spatial Viewer, 2023.

2.3.5 Topography

The site is generally flat, with a minimal slope towards the south-west corner. It is largely unsealed gravel and dirt ground. The site contains small areas of landscaped garden, and a grassy verge on the roadside with several planted trees.

The closest waterway is Haslam Creek, located approximately 1,090m north-west. The site is not on ‘flood prone land’ according to the Cumberland Local Environmental Plan 2021.

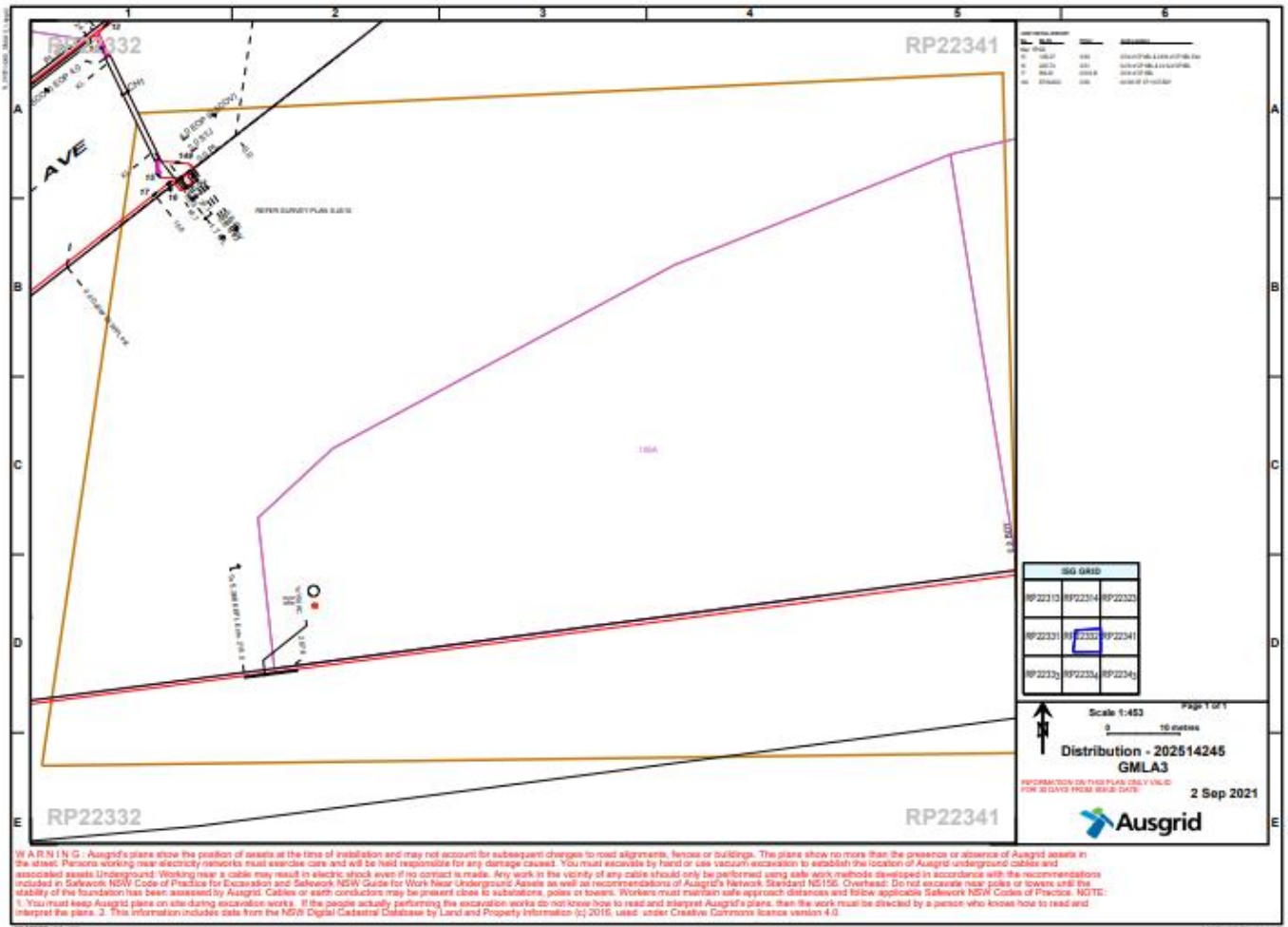
2.3.6 Utilities

A Dial Before You Dig (DBYD) search indicates that the site is serviced by a range of utilities, outlined in Table 2.

Table 2: Relevant Essential Services

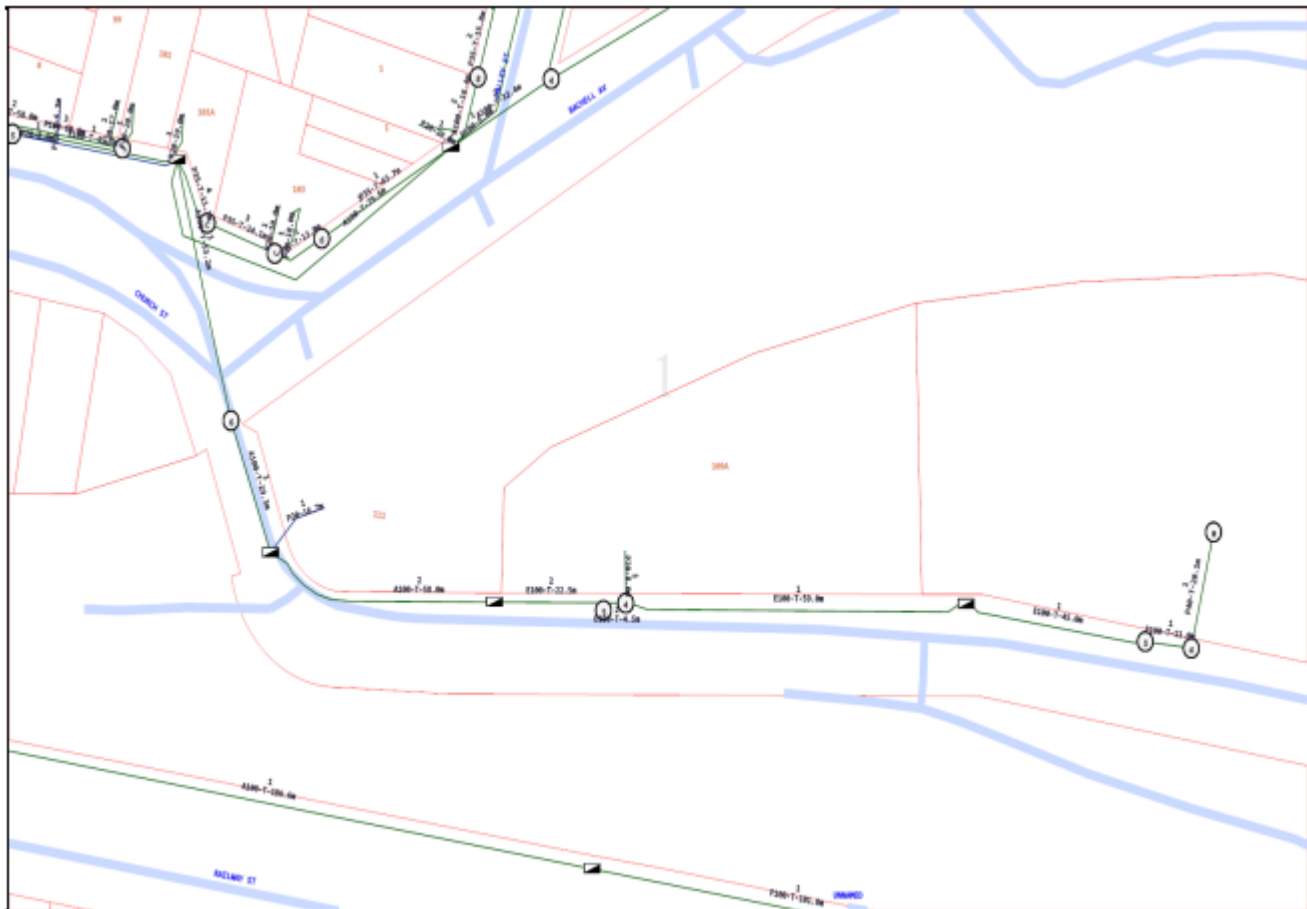
Utility	Comment
Sydney Water	Sydney Water has no infrastructure present on the site or in areas expected to be affected by excavation works.
Ausgrid	<p>There are Ausgrid underground cables on the site but are not present in areas expected to be affected by excavation works. See Figure 4.</p> <p>Works to construct new and extended driveways into and out of the site have the potential to impact underground cables and therefore, would require further investigation prior to commencement of works at the site to ensure these assets are suitably protected or avoided.</p>
Jemena Natural Gas	Jemena gas pipelines are present in the vicinity of the site but are not present on the site or in areas expected to be affected by excavation works.
NBN	Underground NBN assets are present within the subject site, as indicated in Figure 5. Excavation works would be conducted in a way to avoid NBN infrastructure.
Sydney Water	Sydney Water assets are present in the vicinity of the site but are not present on the site or in areas expected to be affected by excavation works.
Telstra	The site is serviced by Telstra underground assets. However, there are no assets on site.

Figure 4: Ausgrid Underground Cables



Source: Dial Before You Dig 2022.

Figure 5: NBN Assets



Source: Dial Before You Dig 2023.

2.4 Surrounding Land Uses

2.4.1 Existing Surrounding Land Uses

The site is contained within a small industrial zone pocket within a larger special use zone for the purpose of rail lines and train repair station (Flemington Maintenance Centre). The proposed development site is bordered by rail lines to the north and west, a pallet manufacturing/distribution centre to the East and Rookwood Cemetery further to the south, on the other side of Church Street. The site is located nearby several large residential zones situated to the north and west (See Figure 6).

Table 3: Surrounding land uses from 109A Church Street, Lidcombe

Direction from the Site	Type of Development
North	<ul style="list-style-type: none"> • Rail lines directly adjacent to the site • Residential dwellings on Bachell Avenue
South	<ul style="list-style-type: none"> • Church Street • Rail lines • Rookwood Cemetery
East	<ul style="list-style-type: none"> • CHEP pallet distribution facility

Direction from the Site	Type of Development
	<ul style="list-style-type: none"> • Flemington Maintenance Centre – Train repairing centre and depot. • Rail lines • Industrial land use
West	<ul style="list-style-type: none"> • Rail lines • Residential buildings • High density residential zone with approval for development of residential flat building between 4 to 10 storeys, comprising 262 residential dwellings at 2-36 Church Street, Lidcombe. • Commercial development

2.4.2 Sensitive Receivers

Sensitive receivers can include residences, schools, hospitals and educational facilities. The nearest sensitive receivers to the site are shown in Figure 7. The nearest residential area is located approximately 65m to the north of the lot boundary, being suburban Lidcombe, located on Bachell Avenue (see Table 4 for approximate distances between each sensitive receiver from the site). Residences located to the north and west are visually shielded from the site by rail corridor, existing vegetation and roadways, including Bachell Ave.

Table 4: Nearby Sensitive Receivers

Sensitive Receiver	Distance from lot boundary	Distance from proposed facility	Direction
Nearest household	60m	75m	North
Nearest residential zone	60m	70m	North

2.4.3 Proposed and Future Surrounding Land Uses

Development for several multi-story apartment blocks has been approved in the R4 – High Density Residential Zone to the east of the site as seen in Figure 7.

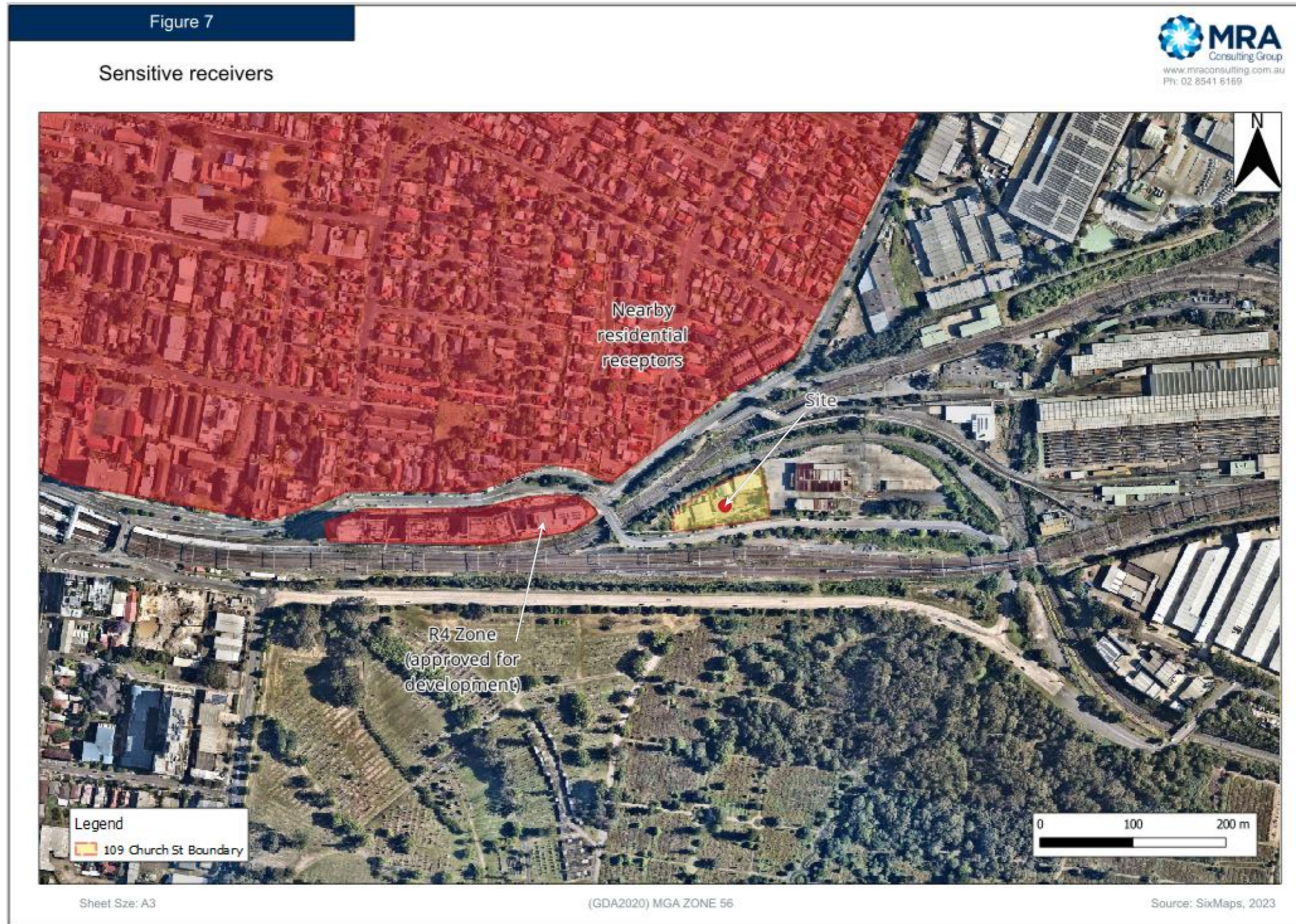
The proposed use as a processing facility for a FOGO transfer station is consistent with the existing land use.

Figure 6: Aerial image of site and surrounding businesses.



Source: Nearmap, 2023.

Figure 7: Sensitive receivers



Source: Nearmap, 2023.

2.5 Site Suitability

The site is suitable for the proposed development as it is:

- Appropriately zoned;
- Separated from sensitive receivers;
- Accessible by public transport and road access; and
- Capable of containing and managing the type and quantity of materials received.

The site is suitable for the proposed use, based on the ability of the site to be developed and from a planning perspective, as waste management uses are permitted with consent in the IN1 – General Industrial zone.

The SEARs issued for this proposal identified the “suitability of the site” as a key issue requiring that the EIS includes the following:

- a detailed justification that the site can accommodate the proposed processing capacity, having regard to the scope of the operations and its environmental impacts and relevant mitigation measures.
- a detailed justification that the chosen site is appropriate, taking into account proximity to residential receivers.
- floor plans depicting the proposed layout, including the location of machinery, equipment and stockpiles.

This EIS analyses the capacity of the site to handle the quantity of waste, the environmental impacts and provides relevant mitigation measures for each potential impact. The management and mitigation measures have taken into account the proximity of residential receptors. Floor plans are provided in Appendix F.

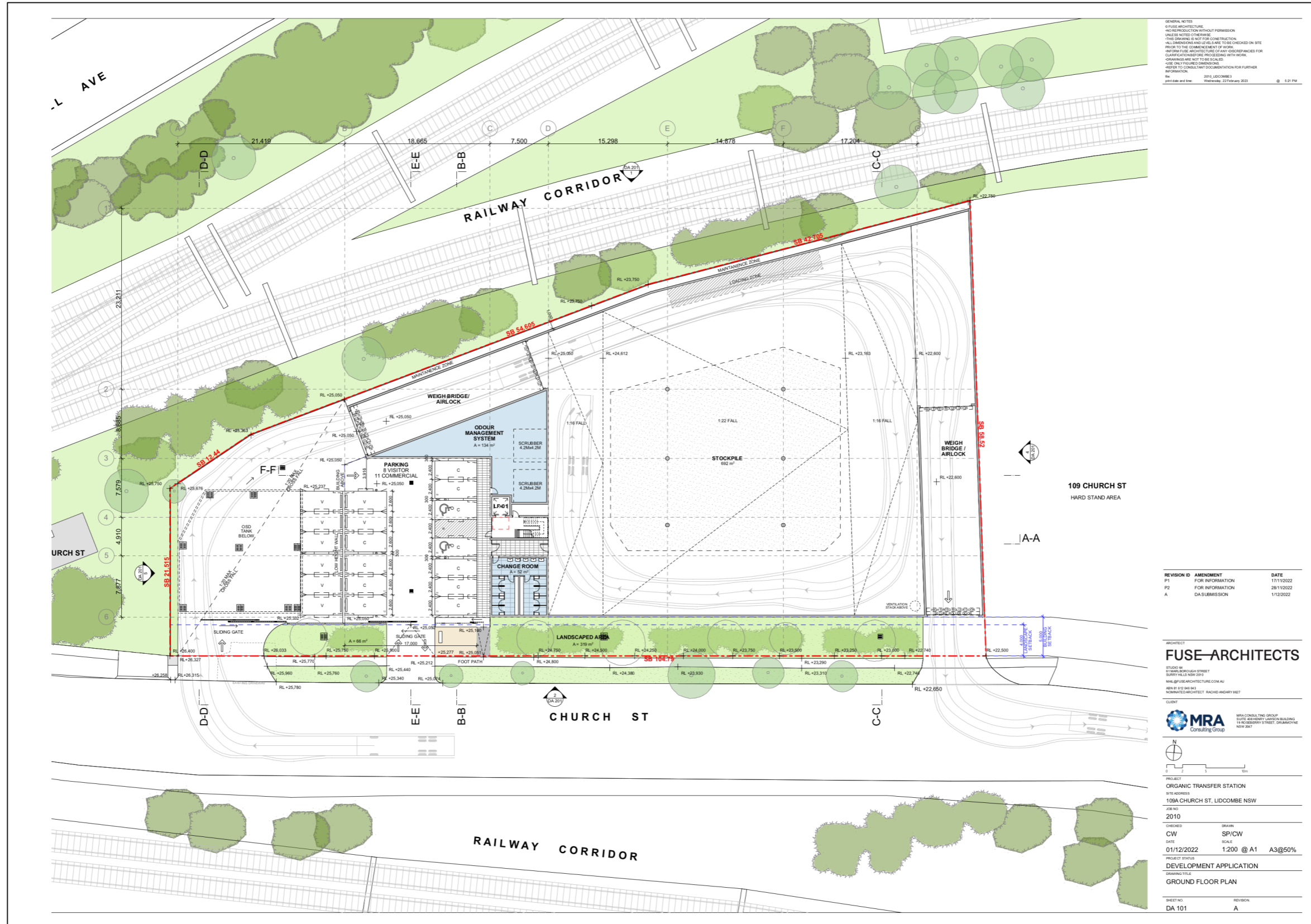
2.6 Description of the Development

2.6.1 Proposed Facility

The organics waste transfer station would receive up to 80,000 tonnes per annum of domestic and commercial derived food organic and garden organic (FOGO) waste for bulking and transfer offsite for secondary processing.

The proposed development would include use of a single industrial building with attached ancillary office space. The layout of the proposed development is depicted in Figure 8 and detailed Architectural package included as Appendix F.

Figure 8: Ground floor plans



Source: Fuse Architects, 2023.

2.6.2 Hours of Operation

The hours of operation for the proposed facility are outlined as follows:

- 6am to 10pm – Monday to Friday, inclusive;
- 8am to 6pm – on Saturday; and
- No operations on Sunday and public holidays.

2.6.3 Staff

The development and commissioning of the site would generate the following full time equivalent positions:

Construction:

- Approximately 10 temporary FTE construction jobs related to site preparation and construction works.

Operation:

- Ongoing operation of the site would result in 2-4 FTE depending on scale of operations.

2.6.4 Site Works

2.6.4.1 Demolition Works

Demolition works consist of:

- Removal of existing mesh fence around the site;
- Demolition of two existing single level industrial units;
- Removal of existing hardstand and gravel areas;
- Excavation of driveway to make way for expanded entry and new exit driveway; and
- Removal of some interspersed vegetation.

2.6.4.2 Construction Works

Construction works consist of:

- Construction of an OTS, including:
 - Earthworks to create level platform for main receival shed;
 - Construction of 3,000m² transfer station shed;
 - Installation of internal weighbridge at both entrance and exit of building;
 - Installation of material storage bays and plant (notably, an odour control system);
- Construction of office and amenity structure;
- Construction of parking area for facility and office staff;
- Construction of internal access and hardstand areas; and
- Landscaping.

2.6.4.3 Construction and Demolition Hours

Working hours are to be restricted within the daily timeframes in accordance with the EPA's *Draft Construction Noise Guideline 2020*. This is in order to ensure works occur outside of more sensitive times (i.e., during daylight hours). Working hours are therefore restricted to the timings outlined in Table 5 below:

Table 5: Recommended standard hours for construction work.

Work Type	Weekday	Saturday	Sunday / Public Holidays
Normal Construction	7am to 6pm	8am to 1pm	No work
Blasting	8am to 5pm	9am to 1pm	No work

Source: EPA – Draft Construction Noise Guideline 2020.

If work is required to be undertaken on Sundays or public holidays, prior permission would be sought from Council.

Neighbours would be advised before works commence and a complaints register would be kept recording details of all complaints received and the means for resolving those complaints.

2.6.4.4 Underground Assets

Excavation works may be required for the installation of two weighbridges and site preparation for the construction of the main industrial buildings and associated access.

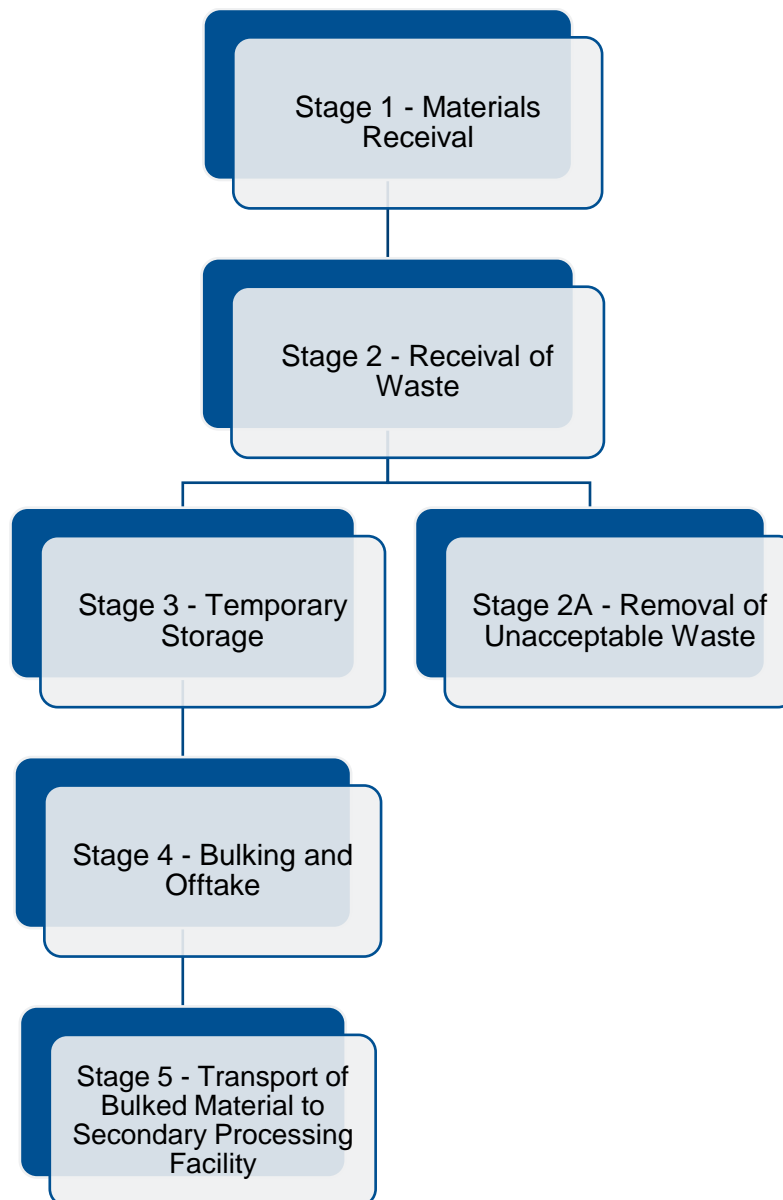
Underground assets include NBN and Ausgrid infrastructure which are located within the site footprint. These assets would not be impacted by excavation activities, however, any works to be conducted near underground assets would be conducted by a qualified building contractor responsible for ensuring underground assets are suitably mapped, avoided and protected throughout works as required.

2.6.5 Process Description

The operational process for the transfer station would be as follows:

- Incoming trucks cross internal weighbridge with initial inspection of loads;
- Receiving of domestic or commercial loads of organics waste from trucks at the receiving bay within the shed;
- Inspection of incoming waste by facility manager/operator staff to assess for potential contamination;
 - If excessive or potentially hazardous contamination is detected, the truck driver would be instructed to reload the waste and remove it from the site;
- Accepted loads would be temporarily stockpiled within the facility prior to being consolidated into offtake articulated vehicle (AV) trucks which would frequent the site daily;
- Offtake of material would be conducted by AV trucks and taken to composting or other organics processing facilities for recycling.

Figure 9: Proposed process flow of organics waste transfer station operations.



2.6.5.1 Stage 1 – Material Reveal

- Trucks enter via one way entrance from Church Street frontage.
- Proceed via driveway to the main transfer station shed.
- Enter via entrance airlock containing a weighbridge where truck is weighed and enters the main shed.
- Trucks circulate around the main storage area to the main tipping area, reversing in and unloading material.
- Trucks continue around one way circulation to the exit airlock for weigh off and exits the site from the main truck exit.

2.6.5.2 Stage 1a – Removal of Unacceptable Waste

- Trucks will be inspected upon being weighed for obvious contamination. Identification of any potentially hazardous contaminants (e.g. asbestos) would be immediately rejected and directed to a facility or site suitably qualified and licenced to receive the waste.
- If no obvious contaminants are detected on weighing, drivers would be instructed toward the tipping area for unloading of material.
- Upon tipping material, facility loader personnel would visually inspect unloaded material for excessive or potentially hazardous contamination.
- Material loads containing excessive or potentially hazardous contamination, would be instructed to reload the waste and remove it from the site, directing material to a facility that is licenced and qualified to receive or dispose of the waste.
- If contaminants of potentially hazardous materials are found within the material that has been deposited

2.6.5.3 Stage 2 – Temporary Storage

- Organic material which is deposited in the industrial shed's central storage area would be moved into consolidated stockpiles by a front-end loader for temporary storage.
- Material storage would be limited to less than 24 hours to reduce the potential for odour generation and build up of excessive material stockpiles.

2.6.5.4 Stage 3 – Bulking and Offtake

- Organic waste would be consolidated in a stockpile for bulking and offload from the site.
- Consolidation of organic material in semi-trailer or truck and dog vehicles which would be filled while parked in the proposed loading area identified on plans (see Section 7.1.3.3).
- Offtake vehicles would be scheduled to regularly attend the site at a minimum of once per day to transport materials offsite.
- Offtake trucks would be scheduled to visit the site outside of peak input times (early morning and early afternoon).

2.6.5.5 Stage 4 – Transport of Bulked Material to Secondary Processing Facility

- Offtake vehicles with consolidated organic material would travel to secondary processing facilities for composting.

2.6.6 Odour Control System

The transfer station would be developed with an odour control system in the form of two in series wet scrubbers. Wet scrubber units would treat the potentially odorous air from inside of the main shed with water (chemical additives can be included to further aid in the treatment of air should the need arise). Based on initial consultation with odour management specialists 'The Odour Unit', it was determined that a wet scrubber system represents the most efficient and effective odour management solution for the proposed development. While it was determined that a single wet scrubbing unit would be sufficient to treat air to a level that would not be detectable beyond the building footprint, a second wet scrubber is proposed to be installed in series to ensure the facility is capable of suitably managing odour associated with the proposed use should one scrubber fail or becomes deficient temporarily. Furthermore, the second scrubber vessel would create 100% redundancy should one vessel be taken out of commission unexpectedly. The proposed scrubber vessels would also be capable of being dosed with chemicals to further improve odour management if required, therefore reducing the risk of potential fugitive odour leakage from the site (see Figure 3 and Attachment A for preliminary design).

A two-stage wet scrubber system, operating in series, would be capable of treating 100,000m³ of air per hour. Wet scrubbing odour control technology involves passing the process exhaust air through a water scrubbing process, often through a packed bed column, resulting in the removal of contaminants by adsorption/diffusion gradients and mass transfer phenomena. The scrubbing liquor will be water, with the capability for chemical dosing using caustic (50% sodium hydroxide) and/or hypochlorite (12% sodium hypochlorite). Using a wet scrubber solution will result in the removal of fine particulate matter and odorous compounds from the exhaust air emissions process prior to atmospheric discharge via a dedicated roof stack. The scrubber vessel is expected to have a working volume of approximately 2,000-3,000 litres of scrubbing liquor, with an expected water make-up consumption of 500-600 L/hour.

The scrubber vessel will have a drainage bleed rate that will be regulated via a timer-controlled solenoid valve or sensor probe for electroconductivity/pH located at the base of the scrubber vessel. The drainage bleed rate will be a function of the quality of the exhaust air being treated (i.e. air contaminant levels), but it is expected to generate approximately 100-200 L/hr of waste liquor. The drained waste liquor will flow to a sump pit within the bunded area of the scrubber vessel, which will be directed to trade waste. These details are preliminary in nature, and the final design of the scrubber-based odour control system will be determined as part of the detailed engineering design process.

The final design would be refined in accordance with outputs of odour modelling completed by The Odour Unit (see Section 7.2 and Appendix I).

2.6.7 Waste Classification

The waste received on site would be comprised of food waste and garden waste.

The *Waste Classification Guidelines, Part 1*, classifies food waste and garden waste as *general solid waste (putrescible)* and *general solid waste (non putrescible)*. It is noted that a mixture of anything referred to as putrescible renders the entire material putrescible. Hence, the classification of waste throughput is deemed to be *general solid waste (putrescible)*.

Food waste

general solid waste (putrescible) means waste (other than special waste, hazardous waste, restricted solid waste or liquid waste) that includes any of the following—

- (a) household waste containing putrescible organics,*
- (b) waste from litter bins collected by or on behalf of local councils,*
- (c) manure and nightsoil,*
- (d) disposable nappies, incontinence pads or sanitary napkins,*
- (e) food waste,**
- (f) animal waste,*
- (g) grit or screenings from sewage treatment systems that have been dewatered so that the grit or screenings do not contain free liquids,*
- (h) anything that is classified as general solid waste (putrescible) pursuant to an EPA Gazettal notice,*
- (i) anything that is classified as general solid waste (putrescible) pursuant to the Waste Classification Guidelines,*
- (j) a mixture of anything referred to in paragraphs (a)–(i).**

Food waste means waste from the manufacture, preparation, sale or consumption of food but does not include grease-trap waste.

Garden Waste

general solid waste (non-putrescible) means waste (other than special waste, hazardous waste, restricted solid waste, general solid waste (putrescible) or liquid waste) that includes any of the following—

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

3 Proposal Need and Alternatives

3.1 Strategic Need

3.1.1 SEARs Requirements

The SEARs issued for this proposal identifies the “strategic and statutory context” as a key issue requiring that the EIS includes the following:

- a detailed justification for the proposal and suitability of the site for the development
- a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies.
- a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out.

This section addresses the requirement.

3.1.2 NSW Waste and Sustainable Materials Strategy 2041

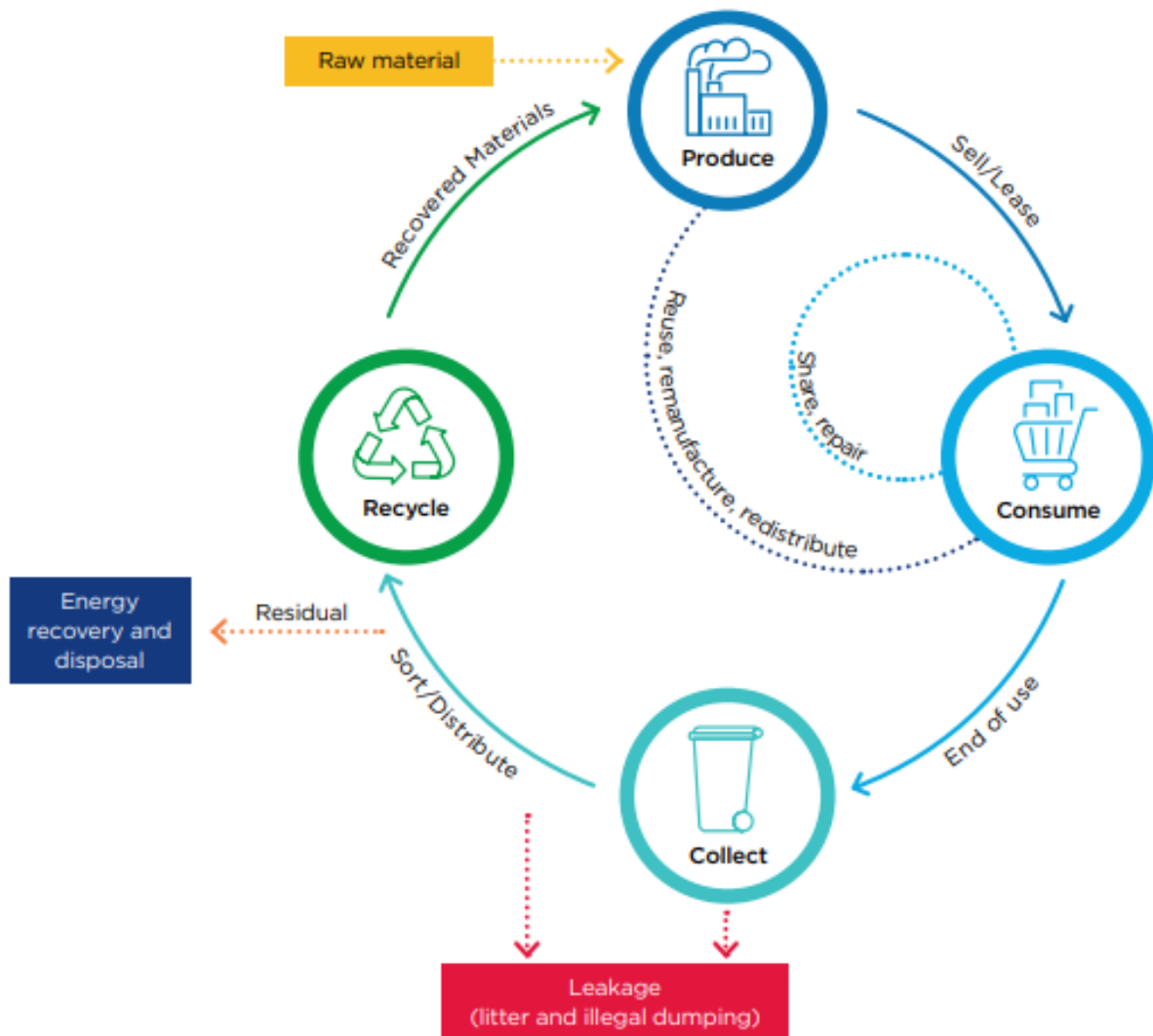
The NSW government has outlined to a set of targets as part of the National Waste Policy which are set out in the NSW Waste and Sustainable Materials Strategy 2041 (WSM Strategy).

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;
- halve the amount of organic waste sent to landfill by 2030; and
- improve on data recovery and reporting.

The NSW Waste and Sustainable Materials Strategy 2041 model of production is a circular economy model which aims to eliminate waste and reduce the continual use of new resources. Circular systems employ reuse, share, repair, refurbishment, remanufacturing and recycling to use resources efficiently and minimise the creation of waste, pollution, and carbon emissions (see Figure 10).

Figure 10: Circular Economy



Source: NSW Waste and Sustainable Materials Strategy 2041.

The NSW Waste and Sustainable Materials Strategy 2041 is a major component of the government's priority to meet community expectations of an efficient waste management system by increasing recycling, recovery and reuse and with a vision to transition towards:

“a circular economy aims to eliminate waste and reduce the continual use of new resources. Circular systems employ reuse, sharing, repair, refurbishment, remanufacturing and recycling to use resources efficiently and minimise the creation of waste, pollution and carbon emissions. The circular economy aims to keep products, equipment and infrastructure in use for longer.”

The NSW Waste and Sustainable Materials Strategy 2041 identifies key targets for waste management and resource recovery in NSW relevant to the proposed development, including:

- an 80% average recovery rate from all waste streams by 2030.
- significantly increase the use of recycled content by governments and industry.

The proposed expansion would be in alignment with meeting the above-mentioned targets by increasing the downstream use of recycled paper, cardboard, and e-waste to improve the quality of input for use in tertiary manufacturing and thus, increasing the amount of material retained within the circular economy.

3.1.3 NSW Waste and Sustainable Materials Strategy – A guide to future infrastructure needs

The *NSW Waste and Sustainable Materials Strategy 2041* identifies that new facilities are required in Greater Sydney areas to process combined food and organics (FOGO) and includes specific reference to new organics waste transfer stations which are required in high population and industry centres to move material outside urban areas for processing. This facility would support this requirement and provide a necessary link to meeting strategic targets set by the State Government.

At present, a limited number of Sydney councils have a food and garden organics collections, either in trial or full service. Whilst the majority of Sydney councils have a garden waste bin, food waste has limited options under current service arrangements.

The guide indicates that *highly urbanised areas account for the majority of organics waste and the biggest demand for new infrastructure and that transfer stations are likely to be needed to bulk and transport organics to suitable locations for processing.*

Key limitations for the widespread introduction of food waste collection services for Councils is the availability of nearby facilities to take mixed food and garden waste. The identified additional need is for up to 250,000 tpa of transfer stations to transfer Sydney organics to regional processing by 2030. An OTS situated in the central west of Sydney would provide a strategically located transfer option for many of the surrounding councils, providing incentive to uptake food waste collection services and facilitating essential infrastructure.

3.1.4 EPA Strategic Plan 2021-24

On July 1st, 2021, the NSW EPA released its 'Strategic Plan 2021-24'. This document sets out the EPA's vision, purpose and focus over the next three years, and outlines how the EPA would achieve their ambition to be a world class regulator, through a learning mindset, being outcomes focused, responsive and adaptive, purpose and people centred, and service orientated.

The EPA has identified five key areas of focus, to achieve their vision 'Best living on the planet, forever' and purpose statement 'healthy environments, economies and communities', being:

- Ecologically sustainable development
- Waste
- Water quality
- Legacy and emerging contaminants
- Climate change

The key focus area of waste is most relevant to the proposal. The EPA seeks to take action to ensure harmful impacts of waste are reduced and minimised, and that community and industry are actively contributing to a circular economy. Moreover, there is an aim to ensure systems and markets are available to keep waste materials circulating. This proposal aligns with these outcomes, supporting the diversion of waste from landfill and investing in the circular economy.

3.1.5 National Waste Policy (2022)

The National Waste Policy supports a coherent, efficient and environmentally responsible approach to waste management in Australia. The policy, released in December 2018, sets Australia's waste management and resource recovery direction to 2030.

The aims of the National Waste Policy are to:

1. Avoid waste:
 - Prioritise waste avoidance, encourage efficient use, reuse and repair.
 - Design products so waste is minimised, they are made to last, and we can more easily recover materials.

2. Improve resource recovery:
 - Improve material collection systems and processes for recycling.
 - Improve the quality of recycled material we produce.
3. Increase use of recycled material and build demand and markets for recycled products.
4. Better manage material flows to benefit human health, the environment and the economy.
5. Improve information to support innovation, guide investment and enable informed consumer decisions.

The policy uses the five key principles to identify 14 priority strategies that would benefit from a national and/or coordinated approach. These strategies provide focus to the work across individual jurisdictions, on current directions and complement existing activities. They also provide clarity and certainty for business and the community. The National Waste Policy supports the proposal through the five key directives.

3.1.6 Mixed Waste Organic Outputs (MWOO)

Mixed waste organics are generated by the processing of mixed waste from residential collections through advanced waste treatment (AWT) facilities using mechanical-biological treatment (MBT) processing methods. MBT facilities mechanically sort the organic component from household general waste which is then composted. The result is a medium termed mixed waste organic outputs (MWOO) by the NSW EPA that has previously been sold as a recovered output under the MWOO resource recovery order (RRO) and exemption (RRE).

The NSW EPA reported summary findings from research on the characteristics and impacts of MWOO. The research was commissioned in 2013 and reported from 2016-2018. The limited publicly released data indicates that the MWOO from at least two facilities in NSW shows consistently elevated levels (in comparison to composted garden organics) of the heavy metals Cadmium, Copper, Lead, Nickel and Zinc. Research also identified that persistent organic chemical contaminants were present at times in elevated levels. A systematic evaluation of the occurrence of organics in MWOO was conducted during 2008-2010 with high concentrations reported leading to the conclusion that PBDEs, phenolics, phthalates, polyaromatic hydrocarbons (PAHs), organotin and the pyrethroid pesticides were the priority compounds of concern.

In May 2018, a technical advisory committee convened by the NSW Environment Protection Authority (EPA) recommended that MWOO are not suitable for use on broadacre agricultural or horticultural soils (TAC, 2018). As a result, in October 2018, NSW changed its regulations to prohibit the application of MWOO to land, driving it to landfill. This presents significant economic and operational challenges for existing Mechanical Biological Treatment (MBT) owners. However, for those producing compost products via alternative means (in-vessel composting, windrows composting, anaerobic digestion etc), it provides an opportunity.

In NSW the State waste target drives local councils to maximise diversion, and councils' own budgets require this at lowest cost. The reported MBT recovery was approximately 53% (NSW WARR 2017-18) of the mixed waste bin and has been the only available means of recovering these organics where a FOGO collection service was not offered. Councils seeking to achieve waste diversion targets include and report this diversion in their waste and resource recovery (WARR) annual reporting to the State government (where required). Without MBT, the metropolitan councils (in NSW) would have approximately 25% less recovery, therefore leaving a gap in the market for alternative means to treat organic waste.

MBT facilities in NSW are currently reviewing operations with the view to identify opportunity to transition to FOGO processing or alternative options.

3.2 Options Analysis

3.2.1 Objectives of Proposal

The objectives of this proposal are to:

- Receive, temporarily store and transfer up to 80,000 tpa of domestic kerbside FOGO and commercially derived food waste from the Sydney metropolitan region – in particular, inner and central west Council areas;
- Provide an OTS to the surrounding LGAs to support Council's and businesses transition to food waste collection services;
- Assist in the diversion of waste from landfill and enhance resource recovery potential, in accordance with the WSMS Strategy and the principles of the waste hierarchy, through the availability of a centrally located transfer station;
- Minimise adverse impacts to the environment and the local community;
- Educate the local community on the benefits of organics waste management; and
- Create jobs for the stimulus of the local economy.

3.2.2 Option 1: Business as Usual (BAU)

Under this option, the site would not be permitted to receive or transfer FOGO waste and the use would remain as approved for general warehousing and storage.

This option would prevent establishing an OTS and would not contribute towards strategic targets for resource recovery and diversion from landfill. Food and organics waste from the region would continue to be landfilled at an economic and environmental cost, and the social benefit from providing up to 14 jobs to the local economy would not be realised.

3.2.3 Option 2: Process 80,000 tpa of mixed FOGO and commercial food at 109A Church Street, Lidcombe

This option involves developing the site at 109A Church Street, Lidcombe, into an OTS capable of receiving and transferring 80,000 tpa of domestic kerbside and commercial derived organics waste. The site is suitable for such a use, based on the ability of the site to be developed and from a planning perspective (waste management uses permitted with consent in the IN1 General Industrial zone).

The site is situated in an industrial area close to major arterial roads that would connect the site to the rest of metropolitan Sydney without causing undue disturbance to residents. Residents and other sensitive receivers are located in the vicinity and would be protected from potential amenity impacts through the implementation of various physical and operational management methods.

The proposal falls under designated development and would require consent from the Cumberland Local Planning Panel, with the full environmental assessment undertaken for the project within an Environmental Impact Statement (EIS). The proposed development is also integrated development in accordance with the PoEO Act 1997 and would require an Environment Protection Licence (EPL) to operate.

This option provides a centrally located organics waste transfer station within range of several Council areas that have indicated an interest or have commenced trials with domestic food waste collections. Additionally, commercial food waste management is available through a range of private contractors in the region and the establishment of the proposed development at this site can be expected to reduce the cost and increase the viability of commercial food services in the area. The site would contribute towards the NSW WARR Strategy target of increasing recycling rates to 70% for Municipal Solid Waste (MSW) and Commercial and Industrial (C&I) waste.

3.2.4 Option 3: Process <80,000 tpa of mixed FOGO and commercial food at 109A Church Street, Lidcombe

An alternative option was considered that brought transfer operations at the site to a scale threshold considerably less than 80,000 tpa (20,000 tpa for example). This would require a similar level of assessment given the elected material types under the requirements of Designated Development, and the Cumberland Local Planning Panel would remain the consenting authority.

Given the current state of domestic food waste in Sydney and NSW, it is anticipated that the surrounding Council areas have in excess of 100,000 tpa of food waste (in addition to existing garden organics waste collected) currently being processed as MWOO through an Advanced Waste Treatment (AWT) facility or being landfilled. The aim of this facility is to provide a suitably located transfer station option in the region to take domestic and commercial derived organics for transfer to suitable facilities located on the extremities and outside of the SMA in a cost and time effective manner. Additionally, a combination of 1 or 2 major local Councils FOGO would be likely to exceed the effective capacity of a small scale transfer station, meaning additional approvals for expansion or additional organics transfer infrastructure would be required elsewhere.

A smaller throughput would not provide the scale required to effectively service the surrounding local government areas, or to adequately provide a return on the investment in site infrastructure. This option was rejected due to the similar planning and assessment requirements while the capacity and therefore recovery and diversion potential of the proposal would be limited. Additionally, should expansion of operations at the facility be elected in future, further approvals would be required, with associated financial and time costs.

3.2.5 Option 4: Alternative site

This option would require an additional site search, with associated time and financial costs. The site is already owned and the landowner is committed to developing the site for the purpose of an OTS. The owner of the proposed development site at Lidcombe and would be impacted financially if an alternative site were pursued as there has been substantial investment of time and resources to pursue the OTS proposal.

This option is not preferred.

3.2.6 Preferred option

Of the options presented, Option 2 is preferred due to the increased potential to capture a substantial volume of organics waste from the surrounding region for transfer to suitable processing facilities for recovery. The site is suitably geographically located in relation to feedstock generation and offtake opportunities. Option 2 would indirectly contribute towards the state's recycling targets through the provision of viable local transfer options.

4 Statutory Planning and Context

4.1 Planning Assessment Process

4.1.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979 (EP&A Act)* and the *Environmental Planning and Assessment Regulation 2000 (EP&A Regulation)* provide the framework for the assessment of the environmental impact of proposed development in NSW.

The objects of the EP&A Act include:

- (a) *to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
- (b) *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
- (c) *to promote the orderly and economic use and development of land,*
- (d) *to promote the delivery and maintenance of affordable housing,*
- (e) *to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*
- (f) *to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),*
- (g) *to promote good design and amenity of the built environment,*
- (h) *to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*
- (i) *to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,*
- (j) *to provide increased opportunity for community participation in environmental planning and assessment.*

Section 4.15 of the EP&A Act outlines matters for consideration in evaluating a development application. These include:

- (a) *the provisions of:*
 - (i) *any environmental planning instrument, and*
 - (ii) *any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
 - (iii) *any development control plan, and*
 - (iiia) *any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
 - (iv) *the regulations (to the extent that they prescribe matters for the purposes of this paragraph),*
 - (v) *(Repealed)*
- that apply to the land to which the development application relates,*

- (b) *the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) *the suitability of the site for the development,*
- (d) *any submissions made in accordance with this Act or the regulations,*
- (e) *the public interest.*

Part 3 of the EP&A Act provides for the formation of environmental planning instruments (EPIs), which can take the form of Local Environmental Plans (LEPs) or State Environmental Planning Policies (SEPPs). EPIs contain provisions that control the permissibility of development and identify when development approval is required. EPIs that are applicable to the Proposal are:

- *State Environmental Planning Policy (Transport and Infrastructure) 2021;*
- *State Environmental Planning Policy (Industry and Employment) 2021;*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021;*
- *State Environmental Planning Policy (Resilience and Hazards) 2021; and*
- *Cumberland Local Environmental Plan 2021.*

4.1.2 Environmental Planning and Assessment Regulation 2000 (EP&A Regulation)

This proposal is Designated Development, pursuant to Clause 4 of the *EP&A Regulation* and according to Schedule 3, Section 45. The project triggers Designated Development by:

- (2) *Development for the purposes of a waste management facility or works if*
 - (a) *the facility or works sorts, consolidates or temporarily stores waste at a transfer station or material recycling facility for transfer to another site for final disposal, permanent storage, reprocessing, recycling, use or reuse, and*
 - (ii) *have an intended handling capacity of more than 10,000 tonnes per year of waste containing food or livestock, agricultural or food processing industries waste or similar substances,...*

Sections 190 to 192 of the *Environmental Planning and Assessment Regulation (2021)* outline the requirements for an Environmental Impact Statement, including the application for the Secretary's Environmental Assessment Requirements, and the form and content of the document. This EIS conforms with Sections 190 and 192.

4.1.3 State Environmental Planning Policies

4.1.3.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

Chapter 2 of the *State Environmental Planning Policy (SEPP) (Transport and Infrastructure) 2021* facilitates the effective delivery of infrastructure across the State through a consistent planning scheme.

In relation to *Waste or resource management facilities*, Division 23 Clause 2.152, allows for development for the purpose of a waste or resource management facility (including resource recovery facility) to be carried out by any person with consent on land in a prescribed zone.

Prescribed zones are defined in Clause 2.151, which includes *IN1 General Industrial*.

The proposed development is consistent with the definition of a waste or resource management facility, and the site is located within a prescribed zone (IN1 General Industrial), therefore the development is permissible with consent.

With reference to Chapter 2.7 (1) *Relationship to other environmental planning instruments* of the *Transport and Infrastructure SEPP 2021*, this instrument prevails over other planning instruments.

4.1.3.2 State Environmental Planning Policy (Industry and Employment) 2021

State Environmental Planning Policy (Industry and Employment) 2021 replaces *SEPP 64 – Advertising and Signage* and *SEPP (Western Sydney Employment Area) 2009*.

Chapter 3 of the SEPP pertains to *Advertising and signage*, and regulating signage to be compatible with objectives such as amenity, communication, quality and benefit, particularly in transport corridors.

Cumberland Council is the consent authority for any advertisements displayed. Signage under this proposal would include:

- Business identification signage;
- Speed limit and traffic flow directions within the site yard;
- Safety signage, including:
 - Identification of potentially hazardous chemicals and their location;
 - Identification of emergency assembly points;
 - Identification of fire-fighting equipment such as fire hose reels and fire extinguishers;
 - Identification of pedestrian walkways
- Parking and traffic movement signs.

Signage would be consistent with the character of the area, would not obscure any views or vistas, would be of suitable scale and design and would not reduce public safety. No additional illumination of signage is necessary. Examples of proposed signage are shown in CGI mock ups of the proposed development included as Appendix P.

Further signage to be installed on the site would be limited to:

- Parking and traffic movement signs.
- Business identification signage at the front gate.

4.1.3.3 State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 2 of the SEPP relates to '*Vegetation in non-rural areas*' and aims to protect the biodiversity values of vegetation and to preserve amenity within certain land, including the Cumberland Council area.

The SEPP applies to the clearing of land under Section 2.6 and requires that:

- “(1) *A person must not clear vegetation in any non-rural area of the State (...) without the authority conferred by a permit granted by the council (...)*
- “(2) *A person must not clear native vegetation in any non-rural area of the State that exceeds the biodiversity offsets scheme threshold without the authority conferred by an approval of the Native Vegetation Panel.*”

No vegetation is to be removed as part of this proposal. Hence, the threshold of the biodiversity offsets scheme would not be exceeded.

4.1.3.4 State Environmental Planning Policy (Resilience and Hazards) 2021

The Resilience and Hazards SEPP consolidates *SEPP 33 – Hazardous and Offensive Development* and *State Environmental Planning Policy No. 55 – Remediation of Land* which relate to this proposal.

Hazardous and Offensive Development

Part 2 of the SEPP pertains to '*Hazardous or offensive development*'.

Certain activities may involve handling, storing or processing a range of materials, which, when all measures have been employed to reduce the impact to the locality, may pose a significant to human

health, life, property or the biophysical environment. Such activities are defined by Clause 3.3 (1) as a 'hazardous industry or hazardous storage establishment'.

Similarly, an 'offensive industry or offensive storage establishment' is an establishment that involves storage or operations which would emit a polluting discharge in a manner which would have a significant adverse impact in the locality, or on the existing or likely future development on other land in the locality.

In determining whether a development is hazardous or offensive, consideration must be given to current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development.

The Department of Urban Affairs and Planning (1997) (DUAP) guideline "Applying SEPP 33" provides a risk screening procedure to facilitate determination of whether a proposed development is applicable under the SEPP. If, under this screening test SEPP 33 is triggered, Clause 12 of SEPP 33 requires that any proposal to carry out a potentially hazardous development must be supported by a Preliminary Hazard Analysis (PHA).

A preliminary screening assessment was undertaken for the proposed facility, which is outlined in Section 6. The assessment found the Proposal would not trigger the need for a Preliminary Hazard Analysis as it would operate below the screening levels set out in the guidelines.

Remediation of Land

Chapter 4 of the SEPP pertains to Remediation of Land.

The objective of the chapter is to provide for a coordinated state-wide planning approach for the remediation of contaminated land. It aims to promote the remediation of contaminated land with the objective of reducing the risk of harm to human health or any other aspects of the environment.

Clause 4.6 requires the approval authority to have regard to certain matters before granting approval. These matters include:

- Whether the land is contaminated;
- Whether the land is, or would be, suitable for the purpose for which development is to be carried out; and
- If remediation is required for the land to be suitable for the proposed purpose, whether the land would be remediated before the land is used for that purpose.

A detailed assessment of any prior contamination on site was commissioned and conducted by Foundation Earth Sciences (Section 7.5). It was concluded that no prior contamination existed on the site of the development. The proposed use would also not cause contamination of land, considering the controls to be put in place and that the site would be covered in hardstand.

Site Zoning

The site is legally described as Lot 1 of DP778492 in the Cumberland Local Environmental Plan (LEP) 2021. The land on which the site location is proposed is zoned as IN1 – General Industrial. Other zones in the vicinity include R3 – Medium Density Residential, R4 – High Density Residential, SP2 – Infrastructure and SP1 – Special Activities (Cemetery).

Figure 3 shows the zoning of the site and surrounding area.

Objectives of Zone

The proposed OTS is entirely located within IN1- General Industrial zoned land.

The objectives of the IN1 – General Industrial zone are:

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.

- To support and protect industrial land for industrial uses.
- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.

The proposal is aligned with the objectives of the IN1 zone.

Land Use Table

The land use table for ‘IN1 – General Industrial Zone’ is given in Table 6:

Table 6: IN1 General Industrial Zone Land Use Table

IN1 General Industrial Zone	
Permitted without Consent	Nil
Permitted with Consent	Centre-based child care facilities; Depots; Food and drink premises; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial training facilities; Kiosks; Landscaping material supplies; Light industries; Liquid fuel depots; Neighbourhood shops; Oyster aquaculture; Places of public worship; Plant nurseries; Respite day care centres; Roads; Rural supplies; School-based child care; Tank-based aquaculture; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4
Prohibited	Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Car parks; Caravan parks; Cemeteries; Charter and tourism boating facilities; Commercial premises; Correctional centres; Crematoria; Early education and care facilities; Eco-tourist facilities; Educational establishments; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Helipads; Highway service centres; Home businesses; Home industries; Home occupations; Home occupations (sex services); Industries; Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Open cut mining; Passenger transport facilities; Pond-based aquaculture; Recreation facilities (major); Registered clubs; Research stations; Residential accommodation; Restricted premises; Rural industries; Tourist and visitor accommodation; Veterinary hospitals; Water recreation structures; Water supply systems; Wharf or boating facilities

The proposal is a ‘waste or resource transfer station’, as defined:

‘Waste or resource transfer station’ means a building or place used for the collection and transfer of waste material or resources, including the receipt, sorting, compacting, temporary storage and distribution of waste or resources and the loading or unloading of waste or resources onto or from road or rail transport.

Note— Waste or resource transfer stations are a type of **waste or resource management facility**.

‘Waste or resource transfer station’ is not prohibited by the LEP and is therefore permissible in the IN1 Zone. The Infrastructure SEPP also allows for use as a waste or resource management facility in the IN1 zone.

LEP Controls

The following table provides an assessment of relevant provisions of Cumberland Local Environmental Plan 2021.

Table 7: Assessment of proposal against Cumberland Local Environmental Plan 2021.

Relevant Control	Response
4.1 Minimum subdivision lot size	Not applicable.
4.2 Rural subdivision	Not applicable.
4.3 Height of Buildings	The exterior roof would be tapered and is proposed to reach a maximum height of 12m. The internal roof of the facility would reach a maximum height of 10m. The LEP does not prescribe a height of building control for this site. Therefore, the proposal complies with this development standard.
4.4 Floor space ratio; and 4.5 Calculation of floor space ratio and site area	<p>The Floor Space Ratio (FSR) for the site is 1:1.</p> <p>The total site area is 4,457sqm.</p> <p>The Gross Floor Area (GFA) of the site is:</p> <ul style="list-style-type: none"> • Warehouse – 2,279 sqm • Admin area – 489 sqm • Rooftop garden – 428 sqm • Odour management area – 134 sqm • Other plant and amenities – 64 sqm <p>Total GFA: 3,394 sqm</p> <p>Therefore, the FSR for the site is 0.76:1 which complies with the development standard of 1:1.</p>
5.3 Development near zone boundaries	Not applicable.
5.10 Heritage Conservation	The site is not a locally listed Heritage Item or located within a Heritage Conservation Area.
5.21 Flood Planning	The site is not subject to flooding.
6.1 Acid Sulfate Soils	The site is located on Class 5 – Acid Sulfate Soils. The proposal is not within 500m of an adjacent class of soil, is not likely to lower the water table and would not

Relevant Control	Response
	involve major excavation works. The development is consistent with the objectives of this clause.
6.5 Biodiversity	A detailed assessment of the biodiversity on and in the vicinity of the site is presented in Section 7.10. No known biodiversity values are present on site, and it is highly unlikely that this development would negatively affect the biodiversity of the near vicinity.
6.10 Buffer area between industrial and residential zones	The development is not located in a designated Industrial-residential buffer area pursuant to the LEP. Notwithstanding, the development is visually and physically separated from residential uses by the existing rail and road network, providing a minimum buffer of 60m.
6.12 Urban heat	The design has been considered in accordance with the urban heat clause in that the ventilation systems would minimise the release of exhaust to private open space and the public domain. Additionally, landscaped areas and deep soil zones have been incorporated into the development to counter the urban heat effect.

4.1.4 Cumberland Development Control Plan 2021

4.1.4.1 General Controls

The below table outlines the Cumberland Development Control Plan 2021 (DCP) controls, and responses to each.

Table 8: Relevant CDCP 2021 General Controls

Relevant Control	Response
Landscaping and Incorporation of Existing Trees	No removal of trees is proposed for this site. Landscaping consisting of four planters and one tree along the southern street level boundary at Church Street.
Bushland and Fauna Habitat Preservation	The site contains only remnant weedy invasive vegetation of low value and does not contain any significant areas of native vegetation. This proposal would not result in any impact on bushland or fauna habitat.
Bush Fire Risk	The site area has not been identified as being bushfire prone under the NSW Rural Fire Service Bushfire Prone Land Map.
Water Cycle Management	The Site would be developed with a large industrial shed and hardstand area that would result in the site being mostly covered by hard surfaces to accommodate the proposed use of the site. An onsite detention (OSD) tank would be installed to capture water resultant from increased stormwater runoff.

Relevant Control	Response
	<p>Risks and mitigation measures associated with these works are addressed fully in Section 10 of this EIS.</p> <p>The proposed development would have connection to sewer for use of onsite amenities and end of trip facilities.</p>
Development Near a Watercourse	<p>The site is situated 1090m from the nearest watercourse. It does not involve the removal of any riparian vegetation. As the operational processes of the FOGO transfer station are fully self-contained, aside from trade wastewater discharge to sewer, there would be no discharge of water offsite.</p>
Erosion and Sediment Control	<p>Works associated with the proposed development are outlined in Section 2.6.4. In summary, works to develop the site would include demolition of existing structures and construction of the new proposed industrial building and associated infrastructure. An Erosion and Sediment Control Plan is included as part of the stormwater design package outlined in further detail in Section 7.4 and included in plans as Appendix K.</p>
Flooding Risk	<p>The site is not primarily situated in a flood zone. However, there is a very small area (<10m²) of low elevation in the north-eastern corner of the site boundary that is classified as low risk under the probable maximum flood. More information regarding flooding is available in Section 7.4.3.7</p>
Contaminated Land Risk	<p>Not applicable.</p>
Acid Sulfate Soils Risk	<p>The site is not identified as being located on any known acid sulfate soils, it is therefore unlikely that any acid sulfate soils would be uncovered during the construction or operational phases of this development.</p>
Weeds	<p>Not applicable.</p>
Demolition of Existing Developments	<p>The site has existing low clearance industrial buildings and ancillary infrastructure which would require demolition by a suitably qualified contractor. Demolition works are described in further detail in 2.6.4.1 and waste material output from these works and their management are outlined in the Waste Management Plan included as Appendix O.</p>
On-site Sewage Management Systems (OSMS)	<p>Not applicable.</p>
Aboriginal Archaeology	<p>Not applicable.</p>

Relevant Control	Response
Heritage and Archaeological Sites	Not applicable.
Car Parking and Access	<p>The site would accommodate parking available for 19 vehicles. Parking requirements have been assessed in section 7.6.3.1.3 and in the Traffic Impact Assessment (see Appendix M).</p> <p>Access to the site would include separate access for trucks and small vehicles. Heavy vehicles would access the site via the western-most driveway and travel one way through the site, through the industrial building and utilise the truck exit in the south-eastern corner of the site. Small vehicles would utilise the dedicated entry/exit to the proposed carpark located adjacent to the administration building.</p>
Subdivision of Land and Buildings	Not applicable.
Water Conservation	<p>Site amenities would be fitted with water efficient fittings to improve water efficiency.</p> <p>Excess water would be treated to trade waste specifications and discharged to sewer, with prior approval from Sydney Water.</p>
Energy Conservation	The site would utilise energy efficient light fittings for both industrial and office components of the site.
Waste Disposal and Re-use Facilities	General waste and recycling bins would be provided for the plant operators, truck drivers, and administrative staff at the site.
Outdoor Advertising and Signage	<p>Signage under this proposal would be in accordance with the State Environmental Planning Policy – Industry and Employment (formerly SEPP 64 – Advertising and Signage) and would be unobtrusive, non-reflective and not create glare. Signage would be limited to a business identification sign on the main building facing Church Street, in addition to internal vehicle movement, parking and safety signage.</p> <p>The main identification signage on the main building would be backlit and approximately dimensioned as follows:</p> <ul style="list-style-type: none"> • L: 3.2m • H: 1.8m <p>CGI renders of the envisaged identifying signage for the site is shown in Appendix P.</p>
Social Impact Assessment	Not applicable. The development is not listed in Table 24 of Section 27 of the Cumberland DCP.

4.1.4.2 Development in Industrial Areas

Table 9 below outlines the controls for developments in industrial areas, and the responses in regard to this proposal.

Table 9: Relevant CDCP Industrial Development Controls

Controls	Response
<p>Setbacks and streetscape character:</p> <p>C1. All front setbacks will be landscaped to provide a high-quality streetscape.</p> <p>C2. Front setback areas shall not be used for storage or display of goods or excessive signage, loading/unloading or large areas of car parking.</p> <p>C3. Landscaping setbacks will comprise soft landscaping and deep soil zones only.</p> <p>C4-C8. There will be no changes to site setbacks which meet the minimum requirements.</p>	<p>The setback to Church Street is landscaped. No setback area would be used for excessive/unsightly signage, storage or carparking.</p> <p>Front setbacks are variable along the site at 5m from the boundary to the main warehouse, and 4m to the administration rooms. This minor variation is expected to be screened by street trees and plantings within the site and considered acceptable as no strong prevailing setback has been established along the row of industrial lots.</p>
<p>Siting and building design:</p> <p>C1. Use non-industrial aspects of a development (e.g., offices) to address the street.</p> <p>C2. Avoid long blank walls of warehouse units, by providing articulation to the façade or division of massing, especially on street frontages.</p> <p>C3. Entries to buildings should be clearly visible to pedestrians and motorists and be integrated into the form of the building.</p> <p>C4. Architecturally express the structure of the building externally to address the primary street frontage and minimise use of reflective glass or large blocks of one material.</p> <p>C5. Articulate entrances, office components and stairwells to create rhythm along facades to minimise the appearance of bulk and scale.</p> <p>C6. Introduce a mix of materials, and incorporate horizontal and vertical modulation, including windows in appropriate proportions and configurations.</p> <p>C7. New development on corner sites is to address both street frontages in terms of façade treatment, fenestration and articulation of elevations, to achieve a high standard of environmental design.</p>	<p>The building has been designed to integrate with and enhance the quality of the existing industrial area.</p> <p>A sculptural roof form articulates the building entry, administration and office areas.</p> <p>The building includes high quality environmental design and materials, horizontal and vertical modulation to articulate the façade, to ensure a high-quality industrial building.</p>

Controls	Response
<p>C8. Roof ventilation, exhaust towers, mechanical plant and the like should be located so as not to be readily visible from any public or residential area.</p> <p>C9. All rooftop or exposed structures including lift motor rooms, plant rooms, together with air conditioning, ventilation and exhaust systems, are to be integrated into the building design in order to ensure interesting and high-quality appearance.</p>	
<p>External materials:</p> <p>C1. Lighter colours shall be used on external walls of the building to reduce heat gain in summer, especially for building facades facing east, west and north.</p> <p>C2. Roofs and walls shall be well insulated in office components of buildings to reduce winter heat loss and summer heat gain.</p>	<p>The building is designed to contribute to the visual amenity of the area and reduce the impact of glare on the environment, and reduce heat gain in the summer.</p> <p>The facility's exposure to the street faces road and rail infrastructure, and toward Rockwood cemetery. The street facing front of the facility would be deemed the most reflective surface of the development. As it does not face residents directly it does not pose any significant impacts.</p> <p>The west facing side of the development, the car park and open entrance side to the building, would be visible to the new residential development described in section 7.7.</p> <p>Roofs and walls would be well insulated in office components of the building to reduce winter heat loss and summer heat gain.</p> <p>Construction materials used should be flat concrete or polly carb plastic which is not reflective in nature. A Summary of material finishes used on site are included in Appendix F.</p>
<p>Solar access:</p> <p>C1. Where a site adjoins or is opposite to a residential property and the proposed structures are over 6m in height, shadow diagrams based on a survey of the site and adjoining development shall be provided. These diagrams shall demonstrate the impact on adjoining residential properties or public domain for 8am, 12noon and 4pm at 21 June.</p> <p>C2. Development is not to unreasonably impact on solar access requirements of adjacent and adjoining residential properties.</p>	<p>The development is not adjacent to a residential zone. In terms of shading impact for any nearby buildings, The development does not adjoin and is not opposite any residential properties. Therefore, the development poses no impact of shading to nearby buildings.</p> <p>Consideration has been given to the solar access into the building using appropriate shading devices and methods.</p> <p>The administration component of the building is designed with solar wells in the</p>

Controls	Response
<p>C3. If adjoining residential, public open space or sensitive land uses (e.g. schools) already receives less than 3 hours of sunlight, any reduction may be unacceptable.</p> <p>C4. Buildings shall be oriented towards the north so that they make best use of solar access to lower heating and cooling costs.</p> <p>C5. Building elevation treatments shall control solar access into the building by the use of appropriate shading devices and methods.</p>	<p>roof to accommodate natural light into workspaces and common areas.</p> <p>A northern orientation is not feasible.</p>
<p>Road design and construction:</p>	<p>No new roads are proposed.</p>
<p>Pedestrian and cyclist facilities:</p> <p>C1. Pedestrian access to private land shall be provided as part of the internal circulation network.</p> <p>C2. Bicycle parking is to be provided as specified in AS 2890.3 – Bicycle Parking Facilities.</p> <p>C3. Bicycle parking shall be located in a safe and secure location that is covered and convenient for users.</p> <p>C4. Trip end facilities including showers and lockers must be provided to adequately service the number of bicycle parking spaces required for industrial development as per the provisions set out in Part G3.</p>	<p>Pedestrian access from Church Street has been provided.</p> <p>There is potential for some bicycle parking to be provided at the front of the site, near the small vehicle access and pedestrian access.</p> <p>End of trip facilities have also been provided in the way of a change room which includes shower facilities.</p>
<p>Public domain improvements:</p> <p>C1. Landscaping is available at the street interface.</p> <p>C2. Landscaping within setback areas is of a similar scale to buildings and all landscaped areas are separated from vehicular areas by means of a kerb or other effective physical barriers.</p> <p>C3. Fencing is of good quality and is integrated as part of the landscaping theme so as to minimise visual impacts and to provide associated site security.</p> <p>C4. Landscaping promotes safety and surveillance of the street.</p> <p>C5. The site frontage provides a soft landscaping area that is available for employees' enjoyment, being away from traffic and operational areas. The area is approximately 250m², which, although less</p>	<p>The street frontage will be entirely landscaped apart from vehicle egress points to assist with shielding and integrating the proposed development to the streetscape.</p> <p>Landscaped areas have been provided to improve visual amenity and soften the industrial development's presentation to the street.</p> <p>Trees are proposed around car parking areas. 399m² of landscaped area has been provided, including space for site staff to enjoy on breaks and otherwise, outside of the office and industrial unit environment.</p>

Controls	Response
<p>than 15% of the total site, would be adequate for the number of staff present at any one time.</p>	
<p>Biodiversity:</p> <p>C1. Landscape plant species are predominantly native.</p> <p>C2. Plant species are established and require minimal watering.</p> <p>C3. Water-conserving landscape practices shall be applied where possible in the maintenance of landscaped.</p> <p>C4. Landscape plant species used in the public domain shall be predominantly native, including local indigenous species.</p> <p>C5. Native grasses and ground covers are in existence onsite and will be considered as landscaping options.</p> <p>C6. There will be no significant changes to biodiversity values or habitat availability.</p>	<p>Landscaping plant species are to be a native mix, which require minimal watering.</p> <p>There is no habitat removal or trees to be removed on site as part of this development. Only weedy invasive vegetation remains existing on site. As such no pre-existing biodiversity values would be changed or diminished as a result of this development.</p> <p>The proposed landscaping would preference native plan species, including local indigenous species where practicable. This approach would also extent to grasses and ground cover.</p> <p>Overall, it is expected that the proposed development would result in a net benefit to biodiversity value and habitat availability.</p>
<p>Storage areas:</p> <p>C1. Storage areas and other potentially unsightly areas shall be screened from adjacent properties, with materials being stored inside.</p>	<p>Storage areas to be located wholly internally within the building.</p>
<p>Safety and security:</p> <p>C1. Provide details on measures to be undertaken to safeguard workers, clients and the general public. Such details are to include:</p> <ul style="list-style-type: none"> • security personnel; • lighting of access ways and car parking areas, particularly in respect of isolated premises; • security doors; • ‘active’ uses presented to the street to promote surveillance and safety; • premises clearly numbered, with the number clearly visible from the street; • avoid the use of isolated back lanes and poorly lit areas; and • any landscaping that is proposed must not obstruct the visibility from public areas of entrances and exits. 	<p>The proposed development would be occupied through regular operating hours identified in 2.6.2.</p> <p>The facility would be fitted with external lighting around the main building and at entrances for visibility and security.</p> <p>The site would have secure and lockable gates, with warehouse buildings fitted with secure lockable roller doors to prevent unauthorised access to the building.</p> <p>Security cameras would be fitted to the site entryways and strategically around the main building for monitoring purposes.</p> <p>The site would be clearly numbered on building signage.</p>

Controls	Response
<p>C2. A crime risk assessment against the Crime Prevention and the Assessment of Development Applications” Guidelines is to be undertaken for larger developments. The recommendations of the assessment shall be used to inform the design and operation of the development.</p>	
<p>Fencing:</p> <p>C1. Fencing shall be integrated as part of the landscaping theme, so as to minimise visual impacts and to provide associated site security.</p> <p>C2. Ensure all fencing along the principal street frontage is an open/permeable style, incorporating pickets, slats, palings or the like.</p> <p>C3. Fencing along the street frontage shall be a maximum height of 1.8m and incorporated with appropriate landscaping.</p> <p>C4. Fences behind the front setback shall be a maximum of 2.1m and incorporated with appropriate landscaping.</p> <p>C5. Chain wire fencing is not permitted.</p> <p>C6. Solid metal panel fences (sheet metal or similar) of any height are not permitted along the street frontage or forward of the building alignment.</p> <p>C7. If the side or rear boundary faces a side or rear boundary of a residential premises, a timber paling/pre-coated metal fencing (commencing at the front building alignment) is permitted along with acoustic fencing and planting.</p>	<p>Fencing is to be integrated as part of the landscaping theme of the development (see Appendix F for architectural plans identifying fencing around the site).</p> <p>Along the street front fencing is to be in an open permeable style, with a 4m landscaping setback to the street and warehouse shed wall. The street facing entrance would feature a sliding metal gate. The perimeter fence would be a chain-link fence. Along the back and side edges of the building a 1m setback would allow for maintenance of walls.</p> <p>Fence height around the site would be approximately 1.8m for appropriate security and maintain compliance with the 2.1m maximum according to the DCP. Fencing would be incorporated with landscaping and the building façade where possible to improve amenity.</p>
<p>Operational management</p>	
<p><u>Hours of operation:</u></p> <p>C1. Where an industrial site is located adjoining or adjacent to, or within 200m of residential development, or where in the opinion of Council, truck movements associated with the industry will intrude on residential streets, hours of operation shall generally be restricted to 7am to 6pm Monday to Saturday with no work on Sundays.</p> <p>C2. Retail trade in industrial zones is to be undertaken within the hours of 7am to 6pm, Monday to Saturday and 7am to 2pm on Sunday.</p>	<p>Proposed hours of operation are 6am-10pm Monday to Friday, and 8am-6pm on Saturday.</p> <p>The site is within 200m of residential development, with the nearest R3 zone 60m north-west of the site. An existing rail corridor divides the uses, and the bulk of operations would be performed within the facility. Notwithstanding, an acoustic report is provided to support the extended hours. An environmental management plan is provided as Appendix G.</p>

Controls	Response
<p>C3. Where an extension to the above hours is required due to the nature of the activities to be undertaken, a detailed submission shall be lodged with Council, demonstrating how environmental impacts can be minimised to acceptable levels to support the proposed extended hours of operation inclusive of an acoustic report and operation management plan</p>	
<p><u>Hazardous goods and chemicals:</u></p> <p>C4. Where a development involves the storage and/or use of dangerous goods, full details of the quantities and types of goods and chemicals are to be submitted with the development application, together with the storage locations, mediums and the use intended for the goods and chemicals.</p> <p>C5. Development is to comply with the requirements of SEPP 33 – Hazardous and Offensive Development. Based on the types and quantities of hazardous goods and of materials used/stored in a development, Council may require an assessment in accordance with SEPP 33.</p>	<p>The proposed development would not result in the storage of hazardous good and chemicals in excess of thresholds set out in the Resilience and Hazards SEPP (2021) or supplementary documents.</p> <p>The proposed development would retain some hazardous goods and chemicals for operation of the site identified as follows:</p> <ul style="list-style-type: none"> • Approximately 400L of Diesel Fuel. • Chemicals related to the scrubber odour control units including: <ul style="list-style-type: none"> ○ 1 x 1,000L IBC of Sodium Hypochlorite, and ○ 1 x 1,000L IBC of Sodium Hydroxide (caustic).
<p><u>Environmental management plan:</u></p> <p>C6. An Environmental Management Plan (EMP) shall be submitted with the application if the development is considered to pose a high risk of adverse environmental impacts. The plan should detail how all environmental impacts will be controlled and/or managed within the site during ongoing operation of the development. Depending on the extent and nature of the proposal under consideration, this could include but may not be limited to:</p> <ul style="list-style-type: none"> • noise and vibration control; • surface water management and stormwater protection; • trade waste arrangements (if applicable); • control and treatment of air emissions; • dust and erosion control (including stockpiles, if applicable); • waste management, including handling of potentially contaminated material; 	<p>An EMP is submitted with the application and is attached as Appendix G.</p>

Controls	Response
<ul style="list-style-type: none"> • identification of relevant person/s on site who are responsible for control strategies, including their position title and contact details; and • details of complaints handling arrangements. 	
<p><u>Noise:</u></p> <p>C7. Sources of noise, such as plant equipment and machinery, shall be sited away from adjoining properties as far as practicable and, where necessary, screened by walls or other acoustical treatment.</p> <p>C8. Operations are to be conducted so as to avoid unreasonable noise and interference to adjoining development, particularly residential development.</p> <p>C9. Operations are to be undertaken in accordance with licences and guidelines from relevant authorities.</p>	<p>A detailed Acoustic report by Pulse White Noise Acoustics Pty Ltd was commissioned to ensure that the operational noise generated by the development is in keeping with and causes no disturbance to the surrounding residential areas. See section 7.3.</p>
<p><u>Staff amenities:</u></p> <p>C10. Provide a high level of staff facilities and recreation space including as a minimum:</p> <ul style="list-style-type: none"> • indoor and outdoor breakout/communal space; • kitchen; and • end of trip facilities. 	<p>The development has provided indoor/outdoor breakout spaces in the form of an atrium located above the office and admin space. Amenities include a kitchenette, end of trip facilities in the form of a staff change room.</p>
<p><u>Plan of management:</u></p> <p>C11. A plan of management is required to be prepared for the development. The plan is to bring together other plans related to the development and identified in this DCP, and to provide a framework for the management of complaints. A review mechanism shall also be provided to ensure the effectiveness of the plan of management and to refine the plan as required. The plan of management shall be made to available to Council or other relevant authority at any time if requested.</p>	<p>A plan of management would be prepared prior to commencement of operation, with consideration to the potential for additional specific management plans being necessary by the EPA or otherwise, prior to issuing of an EPL for operation of the site.</p>
<p>Environmental management</p>	
<p><u>Air quality:</u></p> <p>C1. Details of any equipment, processes and air pollution control or monitoring equipment shall be submitted to Council with a development application</p>	<p>The development would feature two state-of-the-art wet scrubber odour control units. This would provide 100% redundancy in ensuring that no fugitive odour would emanate from the site's FOGO stockpile. To support this development applicant a</p>

Controls	Response
<p>including an assessment of air quality according to EPA standards.</p>	<p>detailed air quality report was commissioned by The Odour Unit (TOU) in accordance with EPA standards. See Section 7.2 and Appendix I.</p>
<p><u>Waste:</u></p> <p>C2. An on-going waste management plan is required to be submitted with the application to detail how all solid and liquid wastes handled on site will be managed. The plan may include, but is not limited to, details on:</p> <ul style="list-style-type: none"> • all waste storage areas (including internal and external areas/rooms); • waste collection arrangements, including collection location and times/frequency; • measures to prevent potential pollution from waste storage/handling activities on site; • any trade waste arrangements; and • measures for dealing with contaminated and/or hazardous waste. <p>C3. Garbage storage areas shall be designed so as to:</p> <ul style="list-style-type: none"> • be readily serviced within the confines of the site with minimum impact on adjoining uses; • incorporate ventilation measures; and • have suitable access to water to maintain waste storage areas. 	<p>A detailed WMP has been submitted as part of this application. See section 7.1</p>
<p><u>Contamination:</u></p> <p>C4. An assessment is to be made by the applicant under SEPP No. 55 – Remediation of Land (or equivalent) as to whether the subject land is contaminated prior to the submission of a development application.</p> <p>C5. All underground petroleum storage systems (UPSS) must be designed, installed and operated in accordance with the Protection of the Environment (Underground Petroleum Storage Systems) Regulation 2019 (the Regulation) and guideline to the Regulation published by the NSW EPA.</p> <p>C6. An application involving installation or modification to a UPSS must be accompanied by:</p> <ul style="list-style-type: none"> • detailed plans of the UPSS; and 	<p>A detailed assessment of any prior contamination on site was commissioned and conducted by Foundation Earth Sciences. It was concluded that no prior contamination existed on the site of the development.</p> <p>See Section 7.5.</p>

Controls	Response
<ul style="list-style-type: none"> certification that the plans and proposed design comply with the Regulation and Australian Standard 897 – 2008 The design, installation and operation of underground petroleum storage systems. <p>C7. Service station forecourts must be designed and managed in accordance with environmental best practice as outlined in the NSW EPA Practice Note Managing runoff from service station forecourts (2019). An application for a service station must be accompanied by detailed plans of forecourt areas which identify all proposed design features and measures to manage runoff in accordance with the Practice Note.</p>	
<p><u>Sustainability and energy efficiency:</u></p> <p>C8. Improve the efficiency of hot water systems by:</p> <ul style="list-style-type: none"> providing solar powered hot water systems where possible. Solar and heat pump systems must be eligible for at least 24 Renewable Energy Certificates (RECs) and domestic type gas systems must have a <ul style="list-style-type: none"> minimum 3.5-star energy efficiency rating; insulating hot water systems; and installing water saving devices, such as flow regulators, 3 stars Water Efficiency Labelling and Standards Scheme (WELS Scheme) rated shower heads, dual flush toilets and tap aerators. <p>C9. An Energy Efficiency Report from a suitably qualified consultant that demonstrates a commitment to achieve no less than 4 stars under the Australian Building Greenhouse Rating Scheme or equivalent must be provided for all commercial and industrial development with a construction cost of over \$5 million.</p> <p>C10. The amount of exposed glazing to the eastern and western facades of buildings shall be minimised.</p> <p>C11. Building design shall minimise reliance on existing energy supplies through the use of renewable energy sources including incorporation of photovoltaic cells, wind turbines, battery storage and solar hot water wherever practicable.</p>	<p>The site would be suitable for installation of solar panels on the roof and could be conditioned in the consent.</p>
<p><u>Water pollution and stormwater management:</u></p> <p>C12. For industrial developments such as mechanical repair workshops and garages, pollution</p>	<p>A detailed report regarding any potential of water pollution and a stormwater management strategy was commissioned</p>

Controls	Response
<p>control monitoring equipment, e.g., retention pits, traps, or bunding shall be used to control the discharge of pollutants into the stormwater system.</p> <p>C13. If the premises are subject to licence under the Protection of the Environment Operations Act 1997, development is to comply with any conditions of such licence that form part of any building approval.</p>	<p>and prepared by Zait Engineering solutions. See section 7.4</p>
<p>Loading requirements:</p> <p>C1. Loading bays for trucks and commercial vehicles shall be provided in accordance with: Industrial/warehouse, bulky goods retail, and wholesale supplies 1 space / 800m² GFA up to 8,000m² GFA, plus 1 space / 1,000m² thereafter.</p> <p>C2. Loading/unloading areas shall be provided in accordance with applicable provisions of Australian Standard (AS 2890).</p> <p>C3. Provide separation between parking and service areas (i.e., loading/unloading areas).</p> <p>C4. Locate and design service areas to facilitate convenient and safe usage.</p> <p>C5. Loading docks shall be located so as to not:</p> <ul style="list-style-type: none"> • interfere with visitor and employee parking spaces; • interfere with pedestrians or vehicle circulation and access; and • result in delivery vehicles queuing on any public road, footway, laneway or service road. <p>C6. A minimum of one loading space shall be provided internally within each industrial unit.</p> <p>C7. Loading areas shall be designed for the largest size vehicle accessing the site.</p>	<p>All receipt and offtake of materials on site are to be conducted within the warehouse facility. This area is separate to the general parking area on site and is designed to not interfere with visitor or employee parking spaces, pedestrian or vehicle circulation or access, or result in any queuing across any public roads, footways, laneways or service roads. The facility is designed to receive the largest vehicle which is 20m Articulated Vehicle (AV).</p> <p>The proposed development would not require typical loading dock functions for deliveries (such as a logistics facility or distribution warehouse) and so this requirement is not applicable in this context.</p>
<p>Car parking design:</p> <p>C1. Parking rates shall comply with the minimum parking rates for cars and bicycles in Section 3 of this Part of the DCP.</p> <p>C2. On-site parking is to be designed so that large expanses of bland concrete paving in the car parking and driveway areas are avoided.</p> <p>C3. Car parking areas, particularly large areas shall be landscaped so as to break up large expanses of paving. Landscaping shall be required around the perimeter and within large carparks.</p>	<p>The development's car park design complies with minimum parking rates in accordance with DCP requirements, featuring 19 car spots, 2 of which are to be designated disabled parking spots. Much of the carpark is designed to be located under the façade of the ground level building as to avoid any large expanse of bland concrete. Landscaping borders the street front boundary of the parking area.</p>

Controls	Response
C4. In open parking areas, 1 shade tree per 10 spaces shall be planted within the parking area.	
<p>Traffic and transport management plan:</p> <p>C5. A traffic and transport management plan are to be prepared for the development. The plan is to include, at a minimum, details on the following items:</p> <ul style="list-style-type: none"> • type of transport used for the development, including operations, staff and visitors; • frequency and duration of movements, including operations, staff and visitors; • size of the largest vehicle accessing the site; • internal management arrangements for vehicle movements, parking and access; • potential scope for public transport, walking and cycling access and facilities for staff and visitors on the site; • management arrangements should traffic and transport impacts flow outside the site where the development is located; and • review mechanisms to confirm the effectiveness of the plan and to refine the plan as required. 	<p>A traffic and transport management plan has been commissioned and prepared by EB Traffic Solutions. See section 7.6. An assessment of any traffic noise generated by this development has also been conducted as part of the commissioned acoustic report. See section 7.3.4.2.</p>

4.2 NSW Environmental Legislation

4.2.1 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (PoEO Act) is the key piece of environmental protection legislation administered by the Environment Protection Authority (EPA). The principal objectives of the PoEO Act are to:

- Protect, restore and enhance the quality of the environment, while having regard to the principles of ecologically sustainable development (ESD);
- Provide increased opportunities for public involvement and participation in environment protection;
- Reduce risks to human health and prevent the degradation of the environment; and
- Assist in the achievement of the objectives of the Waste Avoidance and Resource Recovery Act 2001.

Pursuant to Schedule 1 of the PoEO Act and the *Protection of the Environment Operations (Waste) Regulation 2014* (Waste Regulation), the facility is a *scheduled activity* as it would receive more than 6,000 tpa of waste per year, within the regulated area. Therefore, the Proposal is classified as 'Integrated Development' under the PoEO Act (see Table 10 for details).

Under the PoEO Act, activities that would or are likely to cause pollution are identified as scheduled activities and require an environmental protection licence (EPL). EPLs are issued and administered by the EPA. An application for an EPL would be made after development consent has been granted.

Table 10: Applicable scheduled activities under the PoEO Act

Clause	Activity	Applicable Triggers
Cl. 42	Waste Storage , meaning the receiving from off Site and storing (including storage for transfer) of waste.	<ul style="list-style-type: none"> In the case of premises in the regulated area—6,000 tonnes of waste (other than waste described in Cl. 42 (a) or (b)), is received per year from off site.

4.2.2 Protection of the Environment Operations (Waste) Regulation 2014

4.2.2.1 Record Keeping

Part 2 of the *Protection of the Environment Operations (Waste) Regulation 2014* (PoEO (Waste) Reg) prescribes the requirements for recording waste at scheduled waste facilities. Part 3, Division 1 of the PoEO (Waste) Regulation requires the occupier of a scheduled waste facility to record the following information for each delivery of waste material received at the facility:

- The amount and type of waste and other material delivered;
- The date the delivery was made;
- The registration number of the vehicle making the delivery;
- The particulars of where on the Site the waste and other materials were placed at the facility; and
- The particulars of any waste received that is exempted under clause 10 from the calculation of the contribution payable by the facility.

Record keeping is discussed further in the EMP which is included as Appendix G.

4.2.2.2 NSW EPA Resource Recovery Orders and Exemptions

Orders are made under clause 93 of the Waste Regulation. Outputs of the facility are only bulking and transfer and are to be sent a suitably qualified composter or processing facility, which may process the materials in accordance with the relevant resource recovery order and apply them to land in accordance with the relevant resource recovery exemption.

5 Consultation

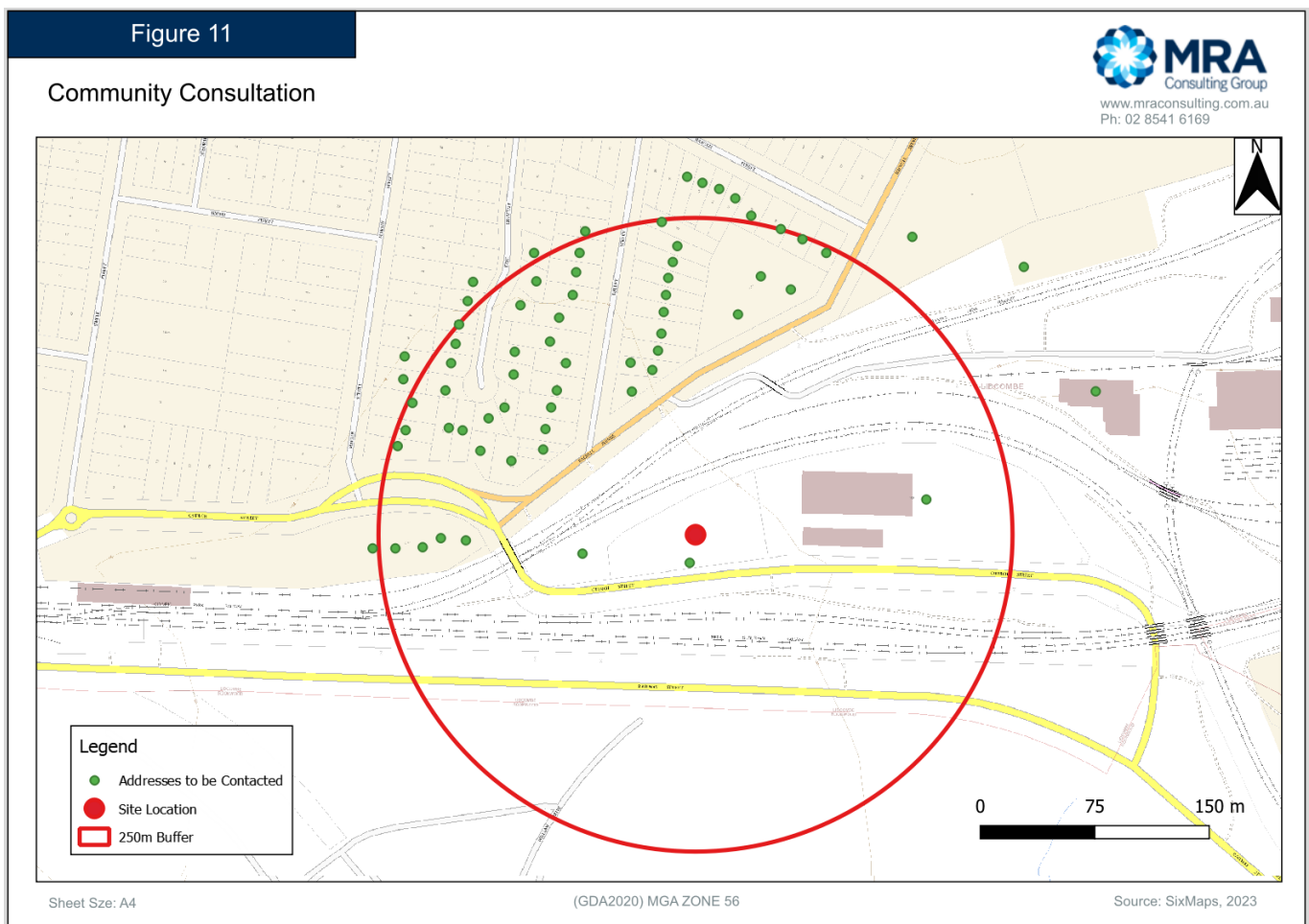
5.1 Community Consultation

MRA Consulting Group (MRA) prepared an information sheet and identified a consultation area for engagement with surrounding land uses and residential properties. A one-page flyer was prepared (attached in Appendix H) and distributed to all landowners and occupiers within a 250m radius of the site (refer to Figure 14 below).

5.1.1 Consultation Area

Businesses and residences in the designated area were subject to a mailout to distribute information regarding the proposal and discuss any issues of potential concern. The mailout occurred on 15th of November 2022.

Figure 11: Area for community consultation



Source: QGIS, Six Maps, 2022.

5.1.2 Responses

One response was received from a local resident requesting the following:

- For confirmation of the current SEPP in relation to the permitted land use at the proposal location.
- If a link could be provided to the DPIE Major projects website relating to this proposal.

- If there was a contact from Cumberland Council that they could speak with regarding the public consultation process.

In response, the resident was provided with further information and was directed to contact the Cumberland Council Planning Department for any further queries regarding the community consultation process for this development.

5.2 Consultation with Relevant Authorities

In accordance with the SEARs issued by DPIE, consultation letters were issued to the following authorities with regards to additional requirements for the proposal. A summary of responses is included below.

5.2.1 Department of Planning, Industry, and Environment (DPE)

Consultation with the Department of Planning and Environment was conducted through the SEARs request process, including follow up consultation on specific outcomes of the issued SEARs (see Appendix D). The project scoping report waste submitted to the DPE on 25th June 2021 and SEARs were subsequently issued on 23rd August 2021.

The proposed development has progressed generally within the bounds of the original scoping report issued to the DPE and therefore, no further consultation was deemed necessary through the development of this EIS outside of the SEARs issued.

5.2.1.1 Environment Protection Authority (EPA)

The EPA provided advice through the SEARs request process which were issued in August 2021. Through progression of documentation and the EIS, the EPA was consulted via email on 10th January 2023, prior to finalisation and submission of the development application package for further comment or directions.

The following response was received on the 20th of January 2023:

EPA acknowledge receipt. I also attach a letter which we sent to the Department of Planning in 2021 which provides our input into the earlier request for SEARS for the project.

The matters raised in the letter continue to apply to the project, and our expectation is that these matters will be addressed in the EIS.

Therefore, no further assessment other than what was initially requested by the EPA would be required.

5.2.1.2 Transport for NSW

Environmental Assessment Requirements (EARs) were not provided by TfNSW with SEARs issued by the DPE. Email correspondence with Transport for NSW (TfNSW) was initiated on the 10th of January 2023. A member of TfNSW responded by way of phone call to organise a briefing session with various key team members prior to DA submission.

A virtual briefing session was held between the applicant team and TfNSW on 30th January 2023 with the following items outlined in Table 11 raised with relevant discussion points and responses for each.

A draft version of the Traffic Impact Assessment (TIA) was provided to TfNSW on 27th February 2023 for comment to which no further comments were received by the time of submission of the EIS. It is expected that any further comment or requests for additional information would be delivered by TfNSW through formal assessment and response to submissions.

Table 11: TfNSW Requirements for Assessment

Issue	Requirement	Section of EIS were addressed
Transport and Traffic Assessment	Daily and peak traffic movements likely to be generated by the proposed development during construction and operation, including description of heavy vehicle types, and haul route origins and destinations.	Traffic & Parking Summary: Section 7.6 Subconsultant Traffic and Parking Assessment: Appendix M Reival and Rejection Process: Section 2.6.5.1 Traffic and Parking Assessment Report: Appendix M
	Details of the impact of trips generated by the development on the following nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for upgrades or road improvement works, if required (Traffic modelling is to be undertaken using SIDRA modelling for current and future years). <ul style="list-style-type: none"> • Heathcote Road / Centenary Avenue • Heathcote Road / Junction Road 	
	Details of light and heavy vehicle movements during construction and operation, including description of heavy vehicle types, and haul route origins and destinations.	
	Details of the proposed site access and the parking provisions associated with the proposed development including compliance with the requirements of the relevant Australian Standards (i.e.: turn paths, sight distance requirements, aisle widths, etc). The proponent must demonstrate that the site plan, site access and surrounding road network can accommodate the largest vehicles, including vehicles entering, exiting and manoeuvring throughout the site	
	Detailing vehicle circulation, proposed number of car parking spaces and compliance with the appropriate parking codes.	
	Daily inbound and outbound traffic profile by time of day and day of week broken down per vehicle types.	
	Detail on how to manage and transport non-conforming waste if received at the site.	
	Traffic management plan on how to manage number of vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing that can be accommodated on the site to avoid queuing in the surrounding road network. This to demonstrate how internal and external traffic can be managed in conjunction with existing traffic on site.	

Issue	Requirement	Section of EIS were addressed
	Detailed site layout to demonstrate that the site would be able to accommodate the most productive vehicle types and parking on site in accordance with the relevant Australian Standard and Council’s Development Control Plan.	Site Swept Path Diagrams: Appendix M

5.2.2 WaterNSW

WaterNSW was contacted by email on 10th January 2023, with requests for comment accompanied by a briefing letter.

Correspondence on 10th and 11th of November confirmed that no licenses or approvals would be required for the site under the Water Management Act 2000 and that the catchment protection team were not concerned about the proposal as there would be no impact to land or assets.

5.2.3 Metro Local Aboriginal Land Council

Email correspondence with Metro LALC was initiated on the 10th of January 2023, however no response was received. Follow up email was submitted one month later on the 28th of February 2023 prior to submission for any comment and no response was received to date of submission of this EIS.

It was therefore assumed that the Metro LALC has no interest in the proposal.

5.2.4 Cumberland Council

A pre-application meeting with Cumberland Council was attended by MRA and the applicant on 17 June 2021 in relation to the proposed development. The meeting was held to introduce Council to the proposed development and discuss key issues to be addressed in the preparation of development documentation.

Pre-Lodgement Meeting Advice was issued to the applicant (PL2021/0060) on 24th June 2021. As part of any future development application to Council, the provisions of the following legislation and policies are to be addressed:

- Protection of the Environment Operations Act 1997 (POEO Act 1997).
- Environmental Planning and Assessment Regulation 2000 (EPA Regs 2000).
- State Environmental Planning Policy (Infrastructure) 2007 – *superseded by the SEPP (Transport and Infrastructure) 2021.*
- State Environmental Planning Policy No 55 – Remediation of Land – *superseded by the SEPP (Resilience and Hazards) 2021.*
- State Environmental Planning Policy No 64 – Advertising and Signage – *superseded by the SEPP (Industry and Employment) 2021.*
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.
- Auburn Local Environmental Plan 2010 (*Superseded by the Cumberland LEP 2021*).
- Draft Cumberland Local Environmental Plan (*now enforced*).
- Auburn Development Control Plan 2010 (*superseded by the Cumberland DCP 2021*).

The Council planning team issued the following requirements for the proposal:

Table 12: Cumberland Council Pre-Lodgement Requirements

Issue	Requirement	Section of EIS where addressed
<p>General Matters for Consideration</p>	<ul style="list-style-type: none"> • It is noted that the proposed education facility is an ancillary component of the development. • Consideration of the proximity of the development to nearby residential development, existing and proposed. In this regard, it is noted that Council is currently in receipt of a development application at 2-36 Church Street, Lidcombe (to the west of the site) seeking consent for alterations and additions to an existing mixed-use development including the provision of additional building levels to facilitate a varying height of 6 to 13 storeys, catering for an additional 114 residential apartments (including additional affordable and social housing units), provision of a new childcare centre and 3 neighbourhood shops, alteration to basement configuration and associated design changes. Documents associated with this application can be accessed using Council’s online DA Tracker and quoting the DA Reference – ‘DA2021/0152’. • Confirmation of the proposed hours of operation and consistency with the hours and consultant studies, including the Acoustic Report. • Details to be provided of proposed truck routes to and from the site – where possible all heavy vehicle movements should bypass residential areas. • Consideration of the provision of a basement car park, having regard to the number of car parking spaces required to service the development. 	<p>Education facility previously included in scoping documentation has been removed and may be considered in a future development application.</p> <p>Section 2.6.2</p> <p>Section 7.6</p> <p>Basement parking not proposed and justified according to the TIA in Section 7.6.</p> <p>The proposed development would generally retain low staff numbers and have infrequent visitors. In future, should the site change use or alter the current proposed operation, there is</p>

Issue	Requirement	Section of EIS where addressed
	<ul style="list-style-type: none"> • No on-street parking space/s or on-street timed parking would be supported by Council. 	<p>scope to incorporate a basement or alternative parking arrangement onsite.</p> <p>Noted, no on-street parking, including timed parking is proposed.</p>
Engineering Requirements	Council's Development Engineer has provided the following comments in relation to the proposal:	
1. Stormwater/Easement:	<p>a) Stormwater details have not been submitted for comments. Stormwater runoff from the entire site shall be discharged by gravity system. In this regard, a downstream easement is required for the stormwater disposal.</p> <p>b) A stormwater concept plan showing the proposed method of stormwater collection and disposal are to be submitted. On site stormwater detention storage system shall be provided in conjunction with the stormwater disposal. The details shall be prepared by qualified practising Civil/Hydraulic Engineer in accordance with Council's Stormwater DCP and Australian Rainfall & Runoff 1987.</p> <p>c) Detailed on-site detention calculation sheets and Council's submission checklist are to be submitted.</p> <p>d) OSD shall be located outside the building floor areas.</p> <p>e) Stormwater from the floor areas shall not be directed to stormwater system.</p> <p>f) Minimum 10,000m³ rainwater tank shall be provided.</p> <p>g) Stormwater runoff from the manoeuvring area including access ways would have to undergo some form of industrial standard primary</p>	<p>Stormwater concept plan and management details, including location of a proposed OSD is identified in Section 7.4 and Appendix K</p>

Issue	Requirement	Section of EIS where addressed
	<p>treatment/separation prior to disposal into existing stormwater systems. In this regard, stormwater treatment device capable of removing litter, oil, grease and sediment shall be provided prior to discharge to the stormwater system.</p>	
<p>2. Traffic/Access:</p>	<p>a) A traffic impact assessment report must be submitted. The traffic impact assessment report shall address the impacts of the proposed development. Including, but not limited to, queuing, parking, traffic generation and vehicle entry and exit.</p> <p>b) It is noted use of B-double vehicle access is proposed as part of the proposal. It should be noted that the subject site does not have an approved B-double access route. B-Double access is managed by Transport for NSW. The matter should be finalised with Transport for NSW.</p> <p>c) Left turn entry/exit of the trucks shall not encroach the centre line of the road. In this regard detail swept path analysis must be submitted.</p> <p>d) Driveway exit shall be minimum 2.0 metres from the eastern side boundary.</p> <p>e) The proposed parking spaces are not adequate. Parking spaces shall be provided for the administration building at the rate of 1 space for 40m² of GFA.</p> <p>f) Similar development/s shall be compared to determine the parking and employee demand for the transfer station operational process.</p> <p>g) The transport arrangement for the proposed education facility has not been provided. If the bus access is proposed, parking arrangement shall be provided. The detail shall be incorporated in any future development application.</p> <p>h) Carparking design shall comply with the ADCP 2010 and Australian standards AS2890.1 and AS2890.6.</p> <p>i) Truck access and manoeuvring shall comply with Australian standard AS2890.2.</p> <p>j) Dimensions (parking space length and width, aisle</p>	<p>Traffic and parking are addressed in Section 7.6 and Appendix M.</p> <p>It is noted that while the site could accommodate B-Double access, the site is proposed to be accessed by a 20m articulated vehicle to comply with existing road limits.</p>

Issue	Requirement	Section of EIS where addressed
	width, parking space gradients, head height clearance, extensions at dead end aisles, etc.) shall be shown on the plan.	
Environmental Health Requirements	Council's Environmental Health Unit has provided the following comments in relation to the proposal:	
1. Contamination Assessment:	Contamination report/s prepared by a suitably qualified consultant skilled in large development assessments must consider the suitability of the proposed uses. The assessment must cover managing demolition, construction, remediation and validation for all proposed uses. This might include Preliminary, Detailed, Remedial Action Plan, Hazardous Material Surveys. A site auditor would need to overview this process.	Section 7.5
2. Acoustics:	<p>An acoustic report is to be prepared by an appropriately qualified acoustic consultant* in accordance with the NSW Noise Policy for Industry, SEPP (Infrastructure), NSW Department of Planning development Near Rail Corridors and Busy Roads – Interim Guidelines and other relevant acoustic standards and guidelines.</p> <p>The report should assess all potential noise impacts on and from the development, including:</p> <p>(a) Impact of noise and vibration from the railway line (adjacent to the site) and other existing noise sources on the proposed office components of the development;</p> <p>(b) Consider the site-specific impact from all operations on nearby sensitive receivers (Residential, commercial, industrial where applicable) including but not limited to noise from construction activities, the proposed waste processing operations, proposed truck/forklift movements, any mechanical plant (specialised machinery, condensers, air compressors, etc), alarms/alerts, after-hours access, operating hours, etc.</p> <p>(c) Suitability of the proposed hours of operation and consideration of any sleep disturbances which may arise as a result.</p>	Section 7.3

Issue	Requirement	Section of EIS where addressed
	<p>**Suitably qualified' is taken to mean having the technical eligibility criteria required for membership of the Association of Australian Acoustical Consultants (AAAC) and/or grade membership of the Australian Acoustical Society.</p>	
<p>3. Layout Plan:</p>	<p>Detailed plans showing all structures and activity areas on site, including internal and external storage areas (especially for solid waste, etc. Note: these items should all be stored in covered areas that are suitably graded and drained such that the stormwater system would not be impacted), loading/delivery zones, parking, mechanical plant, direction of traffic flow for trucks, exhaust stacks, waste storage areas etc. The plans should also demonstrate compliance with the Protection of the Environment Operations (Waste) Regulation 2014.</p>	<p>See Figure 8 and Appendix F for full architectural package.</p>
<p>4. Air Quality (Odour/dust):</p>	<p>If the facility would generate fumes, smoke, odours, dust, etc., then an air quality and odour impact assessment is required to be undertaken and should be prepared in accordance with the Local Government Air Quality Toolkit, AS 1668.2–2012, and NSW EPA guidelines for air emissions and odour. Details of any air treatment and dust suppression systems should be included as well as any proposed mitigation, management and monitoring systems.</p>	<p>Section 7.2</p>
<p>5. Sediment and Erosion Control:</p>	<p>A sediment and erosion control plan must be developed and implemented for the entirety of construction works on site. The sediment and erosion control plan must be designed to prevent the offsite migration of sediment from the proposed development.</p>	<p>Section 7.5</p>
<p>6. Waste Management:</p>	<p>It is advised that a waste management plan be prepared by an appropriately qualified consultant that outlines waste minimisation and waste management strategies to be implemented for the duration of the construction and ongoing operational phases of the proposed development. The plans should demonstrate compliance with the Protection of the Environment Operations (Waste) Regulation 2014.</p>	<p>Section 7.1</p>
<p>7. Environmental Management:</p>	<p>An environmental plan of management should be provided to detail how all environmental impacts</p>	<p>Appendix G</p>

Issue	Requirement	Section of EIS where addressed
	from the use (noise, odours, stormwater, waste, etc.) would be managed.	
8. Activities to be undertaken on site:	<p>Further clarification is to be provided as to the specific activities to be undertaken on site.</p> <p>Waste Requirements</p> <p>Any future development application is to be accompanied by a detailed Waste Management Plan, identifying the waste management measures for each proposed use and for the site collectively.</p>	Section 7.1

5.2.5 Sydney Water

Sydney Water was contacted via email on 10th January 2023 with a brief of the proposed development and a request for comment to guide preparation of the DA package. Sydney Water responded via email on 24th January 2023. Their response included the standard SEARs requirements which were originally issued. Please Refer to Section 0, Table 1 for a summary of SEARs requirements.

Sydney Water EARs and sections of this EIS in which each of the items are addressed is summarised in Table 13.

Table 13: Sydney Water Requirements for Assessment

Issue	Requirement	Section of EIS where addressed
General Comments	<p>Sydney Water requests that detailed domestic and industrial water and wastewater demands be specified within the Environmental Impact Statement.</p> <p>Indicative stormwater, trade wastewater and water re-use quantities should also be included within the EIS report.</p>	Water demands would be minimised by reuse of excess water. Refer to Section 7.4
	The proponent must have an approved trade waste agreement with Sydney Water before any trade wastewater proposed is discharged to our sewer. Please see requirement 4 below.	Water Assessment: Section 7.4
	It is recommended that the proponent engages a Water Servicing Coordinator and meetings are held between the proponent and Sydney Water to ensure that Sydney Water's requirements inform the design process.	Sydney Water would be contacted for a Trade Waste licence. Design of the process may be upgraded.
Sydney Water also requests that the Department of Planning, Industry and Environment include the following Secretary's Environmental Assessment Requirements relating to the provision of water-related services for the subject site:		

Issue	Requirement	Section of EIS where addressed
Water-related Infrastructure Requirements	1. The proponent of the development should determine service demands following servicing investigations and demonstrate that satisfactory arrangements for drinking water, wastewater, and if required, recycled water services have been made.	Drinking water and wastewater infrastructure is already supplied to the site. A Trade Waste agreement and connection to Sewer would be negotiated. Water Assessment: Section 7.4
	2. The proponent must obtain endorsement and/or approval from Sydney Water to ensure that the proposed development does not adversely impact on any existing water, wastewater or stormwater main, or any other Sydney Water asset, including any easement or property. When determining landscaping options, the proponent should take into account that certain tree species can cause cracking or blockage of Sydney Water pipes and therefore should be avoided.	It is understood that a water main is situated under the road at Centenary Avenue. The tree planting required by LCC would be selected with root depth in mind to avoid potential damage to Sydney Water infrastructure.
	3. Strict requirements for Sydney Water's stormwater assets (for certain types of development) may apply to this site. The proponent should ensure that satisfactory steps/measures been taken to protect existing stormwater assets, such as avoiding building over and/or adjacent to stormwater assets and building bridges over stormwater assets. The proponent should consider taking measures to minimise or eliminate potential flooding, degradation of water quality, and avoid adverse impacts on any heritage items, and create pipeline easements where required.	Stormwater assets would not be built upon. Water quality and flooding is addressed in Section 7.4
	4. As this development creates trade wastewater, Sydney Water has trade wastewater requirements which need to be met. By law, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. The proponent must obtain Sydney Water approval for this permit before any business activities can commence. Given this development comprises industrial operations, wastewater may discharge into a sewerage area that is subject to wastewater reuse. Please contact Sydney Water's Business Customer Services to send your permit application or to find out more information. They can be	An application to discharge to trade wastewater would be submitted to Sydney Water prior to any operation of the HVRRR unit. See Section 7.4 for further information.

Issue	Requirement	Section of EIS where addressed
	contacted at the following email address: businesscustomers@sydneywater.com.au	
Integrated Water Cycle Management	5. The proponent should outline any sustainability initiatives that would minimise/reduce the demand for drinking water, including any alternative water supply and end uses of drinking and non-drinking water that may be proposed, and demonstrate water sensitive urban design (principles are used), and any water conservation measures that are likely to be proposed. This would allow Sydney Water to determine the impact of the proposed development on our existing services and required system capacity to service the development.	The proposal would conserve the use of drinking water by recycling water through the truck washout system and the hydro excavation trucks. Water Assessment: Section 7.4

5.2.6 Rural Fire Service

The Rural Fire Service (RFS) was contacted on the 10th of January 2023 seeking any assessment requirements for the proposed development. An automated email response was received on the same day confirming receipt.

No further response has been received from the RFS, and it has been assumed that there is no additional assessment required.

6 Preliminary Environmental Risk Assessment

A preliminary environmental risk assessment has been undertaken to identify key environmental risks associated with the establishment and operation of the composting and manufacturing facility in order to assist with the identification of key environmental issues to be addressed within this EIS.

A qualitative risk analysis was undertaken to identify which environmental issues are considered as “key” environmental aspects. Key environmental issues include those areas of the environment to which the facility poses inherent risks when mitigation measures have not been implemented. In addition, any environmental aspect that requires a complex level of assessment to prove an environmental outcome, either beneficial or adverse, was included as a key environmental aspect.

6.1 Risk Assessment Methodology

The qualitative risk assessment identified key environmental aspects using the risk rating presented in Table 10. The assessment calculated a risk ranking based on the likelihood of occurrence of an event and the expected consequence in the case of the event occurring.

Table 14: Risk analysis categories and criteria for risk rating

Likelihood		Consequence				
		Not significant 1	Minor 2	Moderate 3	Major 4	Severe 5
Rare	A	L	L	M	H	H
Unlikely	B	L	L	M	H	V
Possible	C	L	M	H	V	V
Likely	D	M	H	H	V	V
Almost certain	E	H	H	V	V	V

(Risk Rating = Likelihood x Consequences)

LEGEND:

L - LOW risk	Responsible Managers need to develop or modify policy or procedure to address the risk. A simple action plan can also be developed.
M – MODERATE risk	Action timeframe determined and Risk Action Plan developed by responsible manager with relevant Director informed of progress.
H - HIGH risk	Action timeframe to be determined in conjunction with the Emergency Management Team (EMT) and Risk Action Plan to be developed by the responsible manager.
V – VERY HIGH risk	Immediate action to be initiated in conjunction with EMT and Risk Action Plans to be developed by responsible manager and implemented immediately.

6.1.1 Estimate of Likelihood and Consequence or Severity of Impact

The criteria for evaluating likelihood and consequence of risks are identified in Table 15 and Table 16.

Table 15: Criteria for evaluating likelihood.

Level	Descriptor	Example of Description	Example Frequency of Occurrence
A	Rare	Only ever occurs under exceptional circumstances	Once in more than 20 years
B	Unlikely	Conceivable but not likely to occur under normal operations; no evidence of previous incidents	Between once in 5 years and once in 20 years
C	Possible	Not generally expected to occur but may under specific circumstances	Between once a year and once in 5 years
D	Likely	Would probably occur at some stage based on previous incidents	Between once a month and once a year
E	Almost certain	Event expected to occur most times during normal operations	Once per month

Table 16: Criteria for evaluating consequence.

Level	Descriptor	Safety	Financial	Operational	Environmental
1	Not significant	No medical control required	Low financial cost	< 6 hours facility closure or disruption of operations	No environmental harm
2	Minor	First aid only	Medium financial loss	> 6 hours but < 24 hours facility closure or disruption of operations	Release to environment immediately contained
3	Moderate	Medical treatment, lost time to injury or temporary reversible illness	Moderate financial loss	> 24 hours but < 48 hours facility closure or disruption of operations	Release to environment contained with internal assistance
4	Major	Extensive injuries – permanent partial disability or severe lost time to injury	Major financial loss	> 2 days but < 5 days facility closure or disruption of operations	Release to environment contained with external assistance

Level	Descriptor	Safety	Financial	Operational	Environmental
5	Severe	Death or irreversible disability	Huge financial loss (> \$5m)	> 5 days facility closure or disruption of operations	Pollution event with detrimental effect

6.1.2 Preliminary Assessment

The table on the next page outlines the preliminary risks that may be present under the proposed development, should **no mitigation measures** be employed. These risks may affect staff, neighbouring sites, residents, and the local environment.

Table 17: Preliminary environmental risk assessment assuming no mitigation measures

Issue	Potential Impacts	Comment	Preliminary Risk Ranking	Key Issue?
Air Quality	Air pollution (dust and exhaust emissions) from construction and installation activities on site.	Construction phase would be short in duration and able to manage impacts by a Construction Environmental Management Plan.	Low	Y
	Odour impacts on sensitive receivers from site operations.	Due to the nature of the organic waste received onsite odour poses a significant risk to the local area surrounding the site.	High	
	Dust emissions from trucks entering and exiting site.	Generation of dust brought onto the site from trucks is not likely due to nature of operations.	Low	
	Dust emissions from processing of material.	Unlikely due to non-friable characteristics of both incoming and outgoing material.	Low	
	Dust emissions from stockpiles of material.	Unlikely due to non-friable characteristics of processed materials.	Low	
	Air pollution (exhaust emissions) from vehicles, plant and equipment from site operation.	Moderate volumes of trucks entering and exiting site on a daily basis.	Moderate	
Amenity	Potential negative impacts on the locality due to increased traffic.	Trucks are expected to utilise the site during daytime and nighttime. The site is able to accommodate large volumes of traffic due to the large external space and perimeter circulation.	Moderate	Y

Issue	Potential Impacts	Comment	Preliminary Risk Ranking	Key Issue?
	Potential negative social impacts due to amenity issues including, noise, air pollution, visual amenity and pests.	The site would generate noise due to operations. The location is appropriate for the development type and scale. The site location avoids visual amenity impacts. Pests could be an issue if not subject to control measures.	Moderate	
Biodiversity	Disturbance or damage to flora and fauna as a result of construction activities on site.	The site is located in a largely developed, industrially zoned area which has experienced extensive disturbance from its original state. Minimal vegetation would be removed under this proposal for the construction of the transfer station.	Low	N
	Disturbance or damage to flora and fauna as a result of ongoing operation of site.	The site has been cleared of native vegetation for many years, and is largely covered by hardstand concrete. Only weedy vegetation of low value exists presently on site. It is not expected that construction or operational activities on site would contribute to further loss of biodiversity in the area.		
Hazard and Risks	Fire	Potential fire risks associated with operating an OTS, machinery used on site, temporary storage of materials.	High	Y
	Chemical or fuel spill	Spills of hazardous materials. Contamination of local waterways or accidental discharge to stormwater.	Moderate	
	Flood	Floodwaters damaging equipment, vehicles, plant, or risk to human health. Pollution event from flood damage and possible contamination of local waterways or accidental discharge to stormwater by chemicals or fuels.	Low	

Issue	Potential Impacts	Comment	Preliminary Risk Ranking	Key Issue?
Indigenous Heritage	Disturbance or destruction of items of Aboriginal Heritage.	Damage or destruction to items of Aboriginal Heritage during excavation works. Highly unlikely considering the previous land use and proposed works.	Low	N
Noise and Vibration	Noise impacts on sensitive receivers from site operations.	Operational noise and vibration in relation to traffic movements, loading and unloading and processing of materials at the facility.	Moderate	Y
	Noise impacts from construction works.	Noise and vibration caused by works and installation of plant and equipment for new facility.	Moderate	
Non-Indigenous Heritage	Disturbance or destruction of items of Non-Aboriginal Heritage.	Highly unlikely considering the previous land use and proposed works.	Low	N
Socio-Economic	Impact on local economy	Net positive impact on local economy through generation of employment, increase in supply of recovered resources.	Low	N
Traffic and Access	Increased traffic volumes and frequency	Increased vehicle movements have the potential to place pressure on intersection and road capacities within the vicinity of the site.	Moderate	Y
	Increased demand for parking in the surrounding area	Increased vehicle movements have the potential to place pressure on local parking capacities within the vicinity of the site.	Moderate	
	Reduction in road safety as a result of increased number of	The new facility would result in an increase in trucks accessing the site from Church Street.	Moderate	

Issue	Potential Impacts	Comment	Preliminary Risk Ranking	Key Issue?
	vehicles operating on the road networks around the Site			
Waste Management	Waste Generation	Generation of waste during construction and its inappropriate disposal.	Moderate	Y
	Disruption to operations	Unplanned disruption to processing, resulting in large quantities of unprocessed materials being stored onsite.	Moderate	
	Waste mishandling on site	Waste mishandled on site during operation that may result in injury, damage, or pose a safety risk.	Moderate	
	Receipt of non-conforming waste at the site	Waste that is not permitted being brought on site. Contaminated loads being brought on site.	Moderate	
Water and soils	Leachate entering stormwater drains.	No processing of waste would occur one site and all stockpiling of materials would occur inside the warehouse. Therefore, there would be low chance of generation of leachate from stormwater.	Low	Y
	Leachate or run off entering nearby railway corridors	No processing of waste would occur on site and all stockpiling of materials would occur inside the warehouse. Therefore, there would be low chance of generation of leachate from stormwater.	Low	
	Flood waters entering site	The site is not primarily located on flood prone land. If in the rare event flood waters enter the site, it could lead to accidental discharge of leachate generated from contact with materials.	Low	

Issue	Potential Impacts	Comment	Preliminary Risk Ranking	Key Issue?
	Disturbance of potential acid sulfate soils (PASS) causing environmental harm	No PASS has been detected at the site according to the NSW eSpade tool.	Low	

Key issues (High and Moderate)

- Acoustics
- Air quality (Odour)
- Amenity
- Traffic and access
- Waste management

Non-key issues (Low)

- Biodiversity
- Aboriginal and non-aboriginal heritage
- Socio-economic impacts
- Water
- Hazard and Risks

Specialist studies have been commissioned for the identified key environmental issues of acoustics, soil, water, air quality and traffic.

7 Environmental Assessment

7.1 Waste management

7.1.1 SEARs Requirements

The SEARs issued for this proposal identified “waste management” as a key issue requiring that the EIS includes the following:

- 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 *NSW Waste and Sustainable Materials Strategy 2041*.

7.1.2 Background

The proposed development is located on a site that is previously utilised for general industrial purposes. The proposed activities would result in the use of the site for the purpose of accepting, bulking and transferring offsite up to 80,000 tpa of mixed food and garden organic material from municipal and commercial sources. Section 2.6 describes in further detail the purpose and operation of the proposed facility as it relates to the management of received organic waste from acceptance to offtake.

It is expected that no spoil or excess excavated material would be generated from works onsite as levelling of the land would require minor quantities of additional fill. Existing structures onsite are mainly brick and metal structures with concrete foundations which are expected to have a high resource recovery potential. A Waste Management Plan prepared by MRA Consulting Group addresses in further detail the expected waste material quantities and management methods for waste generated through development works, in addition to operational waste management for waste generated through regular operation of the site once completed. Recycled content materials and easily reused and recyclable materials would be preferred for use in construction works and would be utilised as feasible.

7.1.2.1 Consistency with the NSW Waste and Sustainable Materials Strategy 2041

The *NSW Waste and Sustainable Materials Strategy 2041* does not offer specific guidance to the operation, siting or management of a waste transfer station. As it relates to the proposed development, the *NSW Waste and Sustainable Materials Strategy 2041* sets out several key areas of focus and targets for waste management and resource recovery to meet future demands, including:

- Mandating the source separation of food and garden organics for households (by 2030) and selected businesses (by 2025).
- Having an 80% average recovery rate from all waste streams by 2030.
- Halving the amount of organic waste sent to landfill by 2030.
- Reducing carbon emissions through better waste and materials management.
- Building on our work to protect the environment and human health from waste pollution.

This Proposal would assist in meeting the above objectives. At present, the infrastructure for the management of organic waste is limited to large composters that are generally based outside of Sydney due to the nature of composting activities as a use. Furthermore, there is no current capacity within the

SMA to transfer in bulk, organic waste material since there has been limited uptake in Council's and in a broad sense, commercial businesses for separate food waste collections. With respect to these points, the proposed development would provide a significant opportunity for increasing confidence in neighbouring Council's to consider their transition to FOGO given the proximity to a viable and cost-effective bulk transfer option for organic waste.

Better technology and increased capacity is urgently needed to improve the overall recycling rates of MSW and C&I waste by 2030. As it relates to organic waste, The *NSW Waste and Sustainable Materials Strategy 2041* indicates that significant new infrastructure, including "new organics transfer stations to move material outside urban areas" is required to meet demand by 2030¹.

The proposed OTS responds to a critical need in the waste management infrastructure space which is currently under resourced to meet the requirements for progression of new services which has the potential to lead to significant reductions in organic waste to landfill, improve resource recovery for organics and reduce carbon emissions from landfilled organics.

7.1.2.2 Destinations of outputs

Organic material received at the site would be bulked and sent to an appropriately licenced composting or alternative secondary processing facility capable of receiving mixed food and garden organic waste. Specific destinations of material would be subject to agreement between the proposed facility and the operator of primary processing facilities.

7.1.3 Impact Assessment

7.1.3.1 Construction Waste

The demolition of existing features at the site, as well as the construction and commissioning stage of the proposed facility has the potential to result in the generation of a range of general solid wastes, through the following activities:

- Demolition and removal of existing structures and features;
- Removal of interspersed vegetation;
- Excavation works for weighbridges, driveway works and stormwater infrastructure improvements;
- Construction of site infrastructure including the main industrial building (featuring ancillary components), carparking area, fencing, site access, and stormwater management and drainage;
- Establishment of line markings;
- Installation of signage;
- Internal fit-out and installation of plant and equipment to the new building; and
- Sitewide landscaping.

Waste generated by construction and commission of the proposed MRF has the potential to result in the following impacts:

- Excessive materials being directed to landfill due to inadequate attempts for separation, reuse, and recycling;

¹ DPIE, NSW Waste and Sustainable Materials Strategy 2041 (Figure 5)

- Impacts to human health associated with various types of waste being generated and stored on-site, with the potential for misclassification or mishandling resulting in potential cross contamination;
- Environmental impacts from the incorrect storage, classification, transport and disposal of waste materials generated through the construction and commissioning stage; and
- Traffic impact associated with the removal and transport of waste off-site.

Works related to the construction and commissioning of the site would result in minor quantities of waste generation. Notwithstanding this, waste streams would need to be managed appropriately to ensure minimisation of waste and avoid, where possible, disposal to landfill.

Any waste material generated during the construction of the proposed development would be managed in accordance with a waste management plan, aiming to avoid the generation of waste and prioritising the reuse or recycling of materials where practicable. A Waste Management Plan for construction and operation is included in Appendix O.

A specialist contractor would be engaged to handle construction waste, and therefore it is outside the ability of the proponent to ensure that the provisions of the EPA's *Standards for Managing Construction Waste in NSW* (November 2018) are being met.

7.1.3.2 Operational waste management

Onsite waste management would be limited to office / amenity uses. Otherwise, any materials associated with the use of the site as an OTS, including disposal of any contaminated waste would be managed by a waste management contractor as required. As such, any waste produced by site staff would be minimal and able to be collected through kerbside collection.

A waste management plan (WMP) was prepared in accordance with Council's recommended template and is included as Appendix O.

The WMP concludes that the site can be serviced weekly by:

- 1 x 240L bin for general waste; and
- 1 x 240L bin for commingled recycling.

Bins would be retained at the site near the front entrance for ease of access and transition to the kerbside for collection on a regular basis.

Bins would be serviced on a regular basis by Council's or a private waste collection contractor. The contracted waste service provider would be able to access the site for the purpose of servicing general waste and recycling bins.

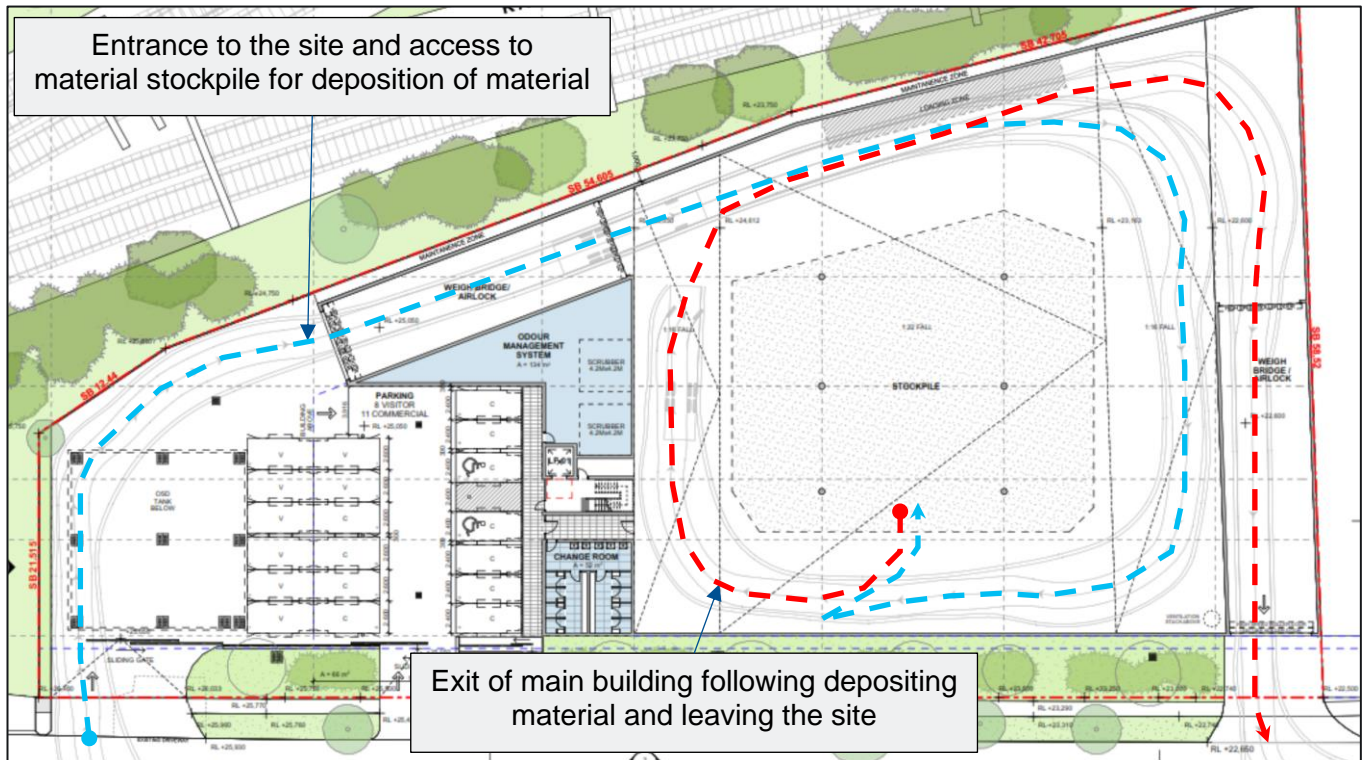
General waste would be sent to a landfill for disposal and commingled recycling would be sent to a suitably qualified recycling facility.

7.1.3.3 Management of Waste Through the Proposed Facility

7.1.3.3.1 Material Acceptance

The proposed development would accept material from a range of sources, generally received at the site by way of a waste collection vehicle, up to a Heavy Rigid Vehicle (HRV) according to the Australian Standards (2890.2:2002). Waste collection vehicle access is outlined in Section 2.6.5 and shown in Figure 12.

Figure 12: Compost dispatch area and public green waste drop off



Source: Fuse Architects, 2023.

7.1.3.3.2 Receival Stockpile

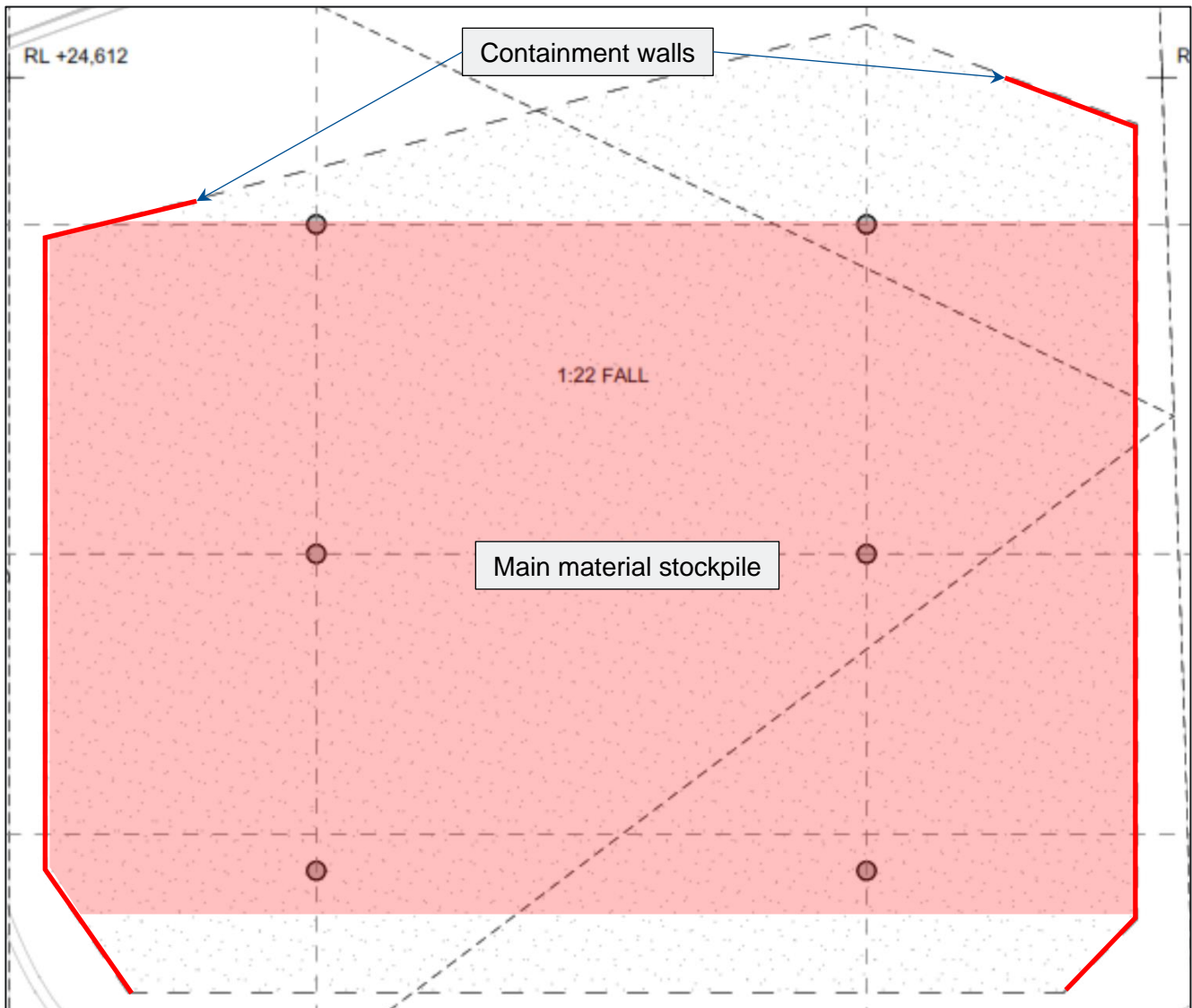
The infeed storage area is located central to the main industrial building. The required area for storage is based off the calculation in Table 18. The available floorspace of 570m² is able to accommodate the required floorspace of 406m²:

Table 18: Receival pile calculations

Item	Unit
Throughput	80,000 tpa
Residence time	24 hours
Tonnes in process	280 tonnes
Density	350 kg/m ³
Volume in process	800m ³
Receival stockpile	
Maximum stockpile height	2.5m
Approximate Volume	1,225m ³
Angle of repose	45 ⁰

Item	Unit
Base floor area needed	406m ²
Available floor area	570m ²

Figure 13: Receival area

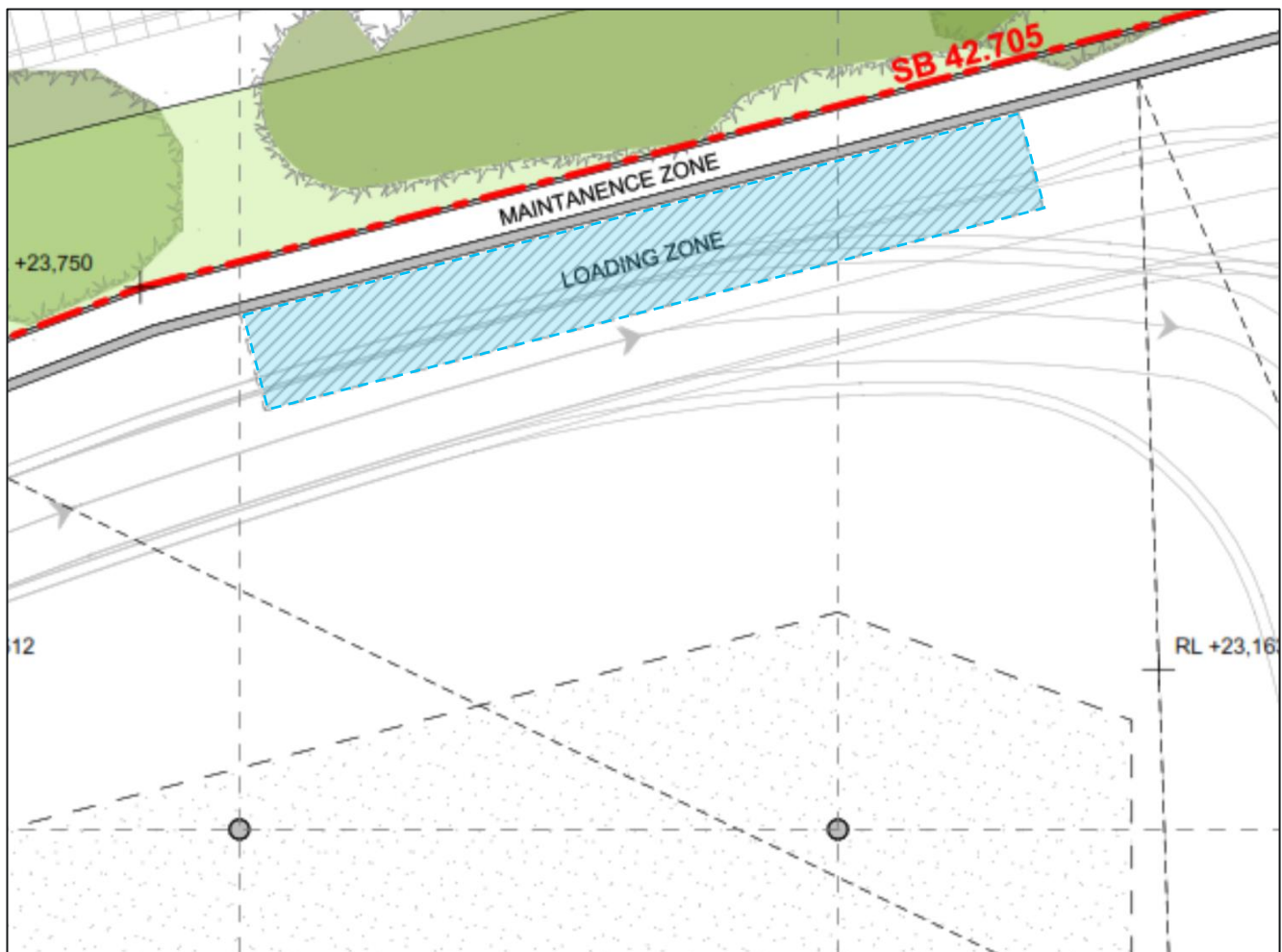


Source: Fuse Architects, January 2023.

7.1.3.3.3 Material Dispatch

Materials would be loaded onto bulk haul trucks (truck and dog or semitrailer) which would be loaded directly from material stored in the main material stockpile. Bulk haul trucks would be positioned in the adjacent loading area for filling by a front-end loader (see Figure 14).

Figure 14: Bulk truck loading area



Source: Fuse Architects, January 2023.

Once bulk haul trucks have been filled to capacity, the trucks would be covered or closed (as relevant) and leave via the main truck exit via a second airlocked weighbridge compartment. All trucks exiting the site from this location would be required to make a left hand turn onto Church Street to access nearby main arterial roadways.

Outgoing material loads would be directed to organics reprocessing and/or composting facilities for recovery, maturation and blending of organic material into saleable products which can be circulated back into the economy.

7.1.3.3.4 Contamination management

Incoming loads have the potential to be contaminated with non-compliant household or commercial derived wastes such as plastic, metals, non-compostable paper and cardboard, containers, and other items which may have unintentionally been placed in the FOGO or food waste bin.

Input materials would be delivered by collection trucks operated by Council or Commercial contractors. Vehicles enter the site via the main truck access on Church Street, entering the main building via an airlocked entrance with a weighbridge. Following weighing, trucks would be permitted access to the main industrial shed where they are directed to the drop off or loading point. Facility staff would monitor the drop off location to avoid excessive-stockpiling and to ensure that inputs are consistent with the organics waste type.

If a load is detected to have uncharacteristic material at either the weighbridge or the drop off point, it would be rejected and require removal from the site to a suitably qualified facility for disposal.

Some contaminants are expected and are anticipated to be removed at the processing step offsite once material is taken to a suitably qualified organics processing or composting facility.

Any material that is residual to the transfer process would be stored and removed in closed bags or covered bins and disposed of to a suitably licensed landfill.

7.1.3.3.5 Pollution

Litter and debris are unsightly and can become habitat for pests and vermin.

Loading, unloading and processing of materials would be within the proposed industrial building warehouse. While it is not expected that any litter would migrate to external areas, fencing around the site and litter guards on drains would assist in controlling potential impacts of litter at the site. Daily litter patrols would be implemented to ensure the site is kept tidy.

Potential air, noise, water and soil pollution impacts are able to be mitigated by containment of materials within the warehouse and appropriate management of the site. Detailed assessments are included in the below.

7.1.3.3.6 Contingencies

The site has been designed to accommodate a stockpile of around 2 days' worth of material input if required, however would generally clear material within 24 hours of receipt. In the event of an unforeseen circumstance such as the breakdown of the front end loader or otherwise, material could be stockpiled in the short term while any issues are resolved.

The proposed use, being simply for the storage and bulk transfer of materials would not rely on a large amount of equipment and machinery and therefore, is not expected to be subject to significant risk of interruption by breakdown or otherwise.

The odour management system (OMS) proposed for installation at the site has been designed with 100% redundancy in that the unit would have two odour scrubbing vessels capable of operating independently and in series. It is expected that a single scrubber would be capable of more than sufficiently managing odour emanating from input organic materials and therefore, should one of the scrubbers require repair or maintenance, the second unit would be capable of taking over.

7.1.3.3.7 Quality Control

Quality control is achieved through:

- Inspection process on arrival to ensure that only acceptable waste is received;
- Recording of loads with high levels of contamination to report back to source providers (Councils, waste collection contractors, etc) to assist with education programs and other means for ensuring material is not overly contaminated;
- Rejection of heavily contaminated or non-complaint material loads;
- Maintaining relevant environmental, compliance and complaints registers; and
- Provision of regular training for site personnel on acceptance criteria and material quality standards.

7.1.4 Summary and mitigation measures

Overall, the facility has the potential to improve the management of organic waste in the region through the provision of a conveniently located transfer hub. This would enable organic waste material derived

from proximal municipalities and businesses for bulk haulage to suitable facilities on the fringes and outside of the SMA for reprocessing. Ultimately this would improve efficiencies by reducing truck movements with smaller payloads over long distances to deliver organic waste materials. Furthermore, the proximity of the proposed development to major Inner and Central Western Sydney Councils would provide a cost-effective destination for material which is currently subject to reform and is yet to enter the waste management market.

The proposed process minimises transportation of materials and supports the objectives of the WARR Act, the WSMS by facilitating material toward higher order uses and promoting landfill diversion.

The site has been designed to manage stockpiles of materials within the designated area.

Measures would be put in place to manage contamination and potential impact of waste accepted and stored onsite:

Construction

- Waste materials generated from construction or installation works associated with the commissioning of the proposed transfer station would be managed according to the management methods outlined in the Waste Management Plan prepared for the proposed development, attached as Appendix O; and
- Construction materials would be sourced from recycled resources or easily reusable/recyclable materials where feasible.

Waste management

- Non-conforming loads (not indicative of compostable organic materials) would be rejected and directed to a facility that is licenced to receive or dispose of the material;
- Hazardous materials would not be accepted at the facility. If hazardous materials are identified, they are to be stored separately and in a manner that avoids risk (e.g. in a bunded container, away from flammable materials, as appropriate). Hazardous materials are managed according to a Safety Data Sheet (SDS);
- Asbestos is not accepted at the facility. If asbestos is initially identified prior to tipping, the entire load would be rejected and re-directed to a facility that is licensed to receive it. If asbestos is encountered after tipping, it would be isolated, wrapped, quarantined and taken to a facility that is licensed to receive it (not expected);
- Non-conforming waste and residual waste is to be stored separately and is not to be re-mixed with sorted materials;
- All waste would be delivered and handled inside the proposed industrial building to avoid litter and amenity issues;
- Facility staff would monitor the material stockpile, specifically the material deposit location to avoid excessive-stockpiling and to ensure that inputs are consistent with organic waste types; and
- Material has the potential to be malodourous and therefore, an odour management system would be installed and functional at the site to ensure the site does not have impacts on air quality.

Ongoing housekeeping

Ongoing housekeeping strategies are outlined in further detail in Section 7.7.

Record Keeping and Reporting

- Record Keeping and Reporting would be in accordance with the PoEO (Waste) Regulation.

Procedural requirements

The EMP would contain over-arching procedural requirements and responsibilities which must be adhered to by all staff and contractors. These procedures would be reviewed annually (or as required) and updated by suitably qualified staff of external specialist.

Additionally, as the site would accept waste material, the proponent would ensure subcontractors meet all legal obligations as a minimum by ensuring compliance with the following:

- *Protection of the Environment Operations Act 1997; and*
- *Protection of the Environment Operations (Waste) Regulation 2014.*

7.1.5 Conclusion

Implementation of appropriate procedures and ongoing monitoring of operations contained in the Proponent's Environmental Management Systems and other relevant supporting documentation would ensure commissioning of the OTS and ongoing operational waste can be managed effectively, mitigating against potential amenity, pollution and health/safety impacts.

7.2 Air Quality and Odour

7.2.1 SEARs Requirements

The SEARs issued for this proposal identified the "Air Quality and Odour" as a key issue requiring that the EIS includes the following:

- 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 and odour impact mitigation and
- monitoring measures, in line with International Best Practice
- demonstrating how site operations would mitigate and manage odour.

7.2.2 Background

Organic material, including food and garden waste, has the potential to produce unwanted odours that may impact the area surrounding the facility. The proposed OTS is situated in an area with a mix of land uses, including industrial, rail, cemetery, and residential communities located to the north of the site, across the train tracks.

Operations such as the movements of trucks and handling of materials have the potential to generate dust and release particulates into the air. It is noted that truck access to the site would primarily be indoors and materials proposed to be managed are not characterised by high dust potential. It is expected that input materials are intact, relatively moist, with incoming and outgoing materials to remain covered when entering and exiting the site via truck. The main material stockpile on site is to be stored entirely indoors.

To consider the potential impact of odour as a result of facility operations, an Odour Impact Assessment was undertaken by The Odour Unit (TOU), an air quality odour specialist consultancy. Air dispersion modelling was conducted using the CALMET and CALPUFF modelling systems to predict the potential of off-site odour in the surrounding area due to the proposed operation of the development. The report is summarised below and is attached in Appendix I.

Modelling was performed to identify potential impacts to 7 receptor locations in the local area, including three sites identified as sensitive receptors which represent a conservative sample of the potential impact of the proposed development.

The Assessment approach was based on a Level 3 modelling assessment (NSW EPA, 2022), consisting of the following scope of works:

1. Development of an odour management system (OMS) concept for the Proposed facility and the adoption of modelling as a design tool to enable the undertaking of a sensitivity analysis under different design configurations;
2. Based on the selected OMS concept, development of a maximum odour concentration discharge limit based upon various stack configuration scenarios in the context of TOU's in-house knowledge and experience in the waste management industry. This would ensure that the data is directly relevant and applicable to the activities at the Proposed facility; and
3. The documentation of a formal report suitable for issue to the New South Wales Environment Protection Authority (NSW EPA) and/or the local Council.

7.2.3 Odour Management System Concept Design

In March 2021, TOU attended an in-person design workshop hosted by MRA. During the design workshop, an optioneering analysis was undertaken that included discussions surrounding various odour management options that were considered for the proposed facility. The various options are discussed in greater detail within the TOU report (Appendix I: Section 3: OMS Concept Design).

Given the space constraints of the Proposal site and to ensure a degree of redundancy and performance resilience, a two-stage wet scrubber system, configured in series, was identified as the preferred solution. This option was selected as it delivers a practicable and feasible technology that is in-line with industry best practice.

The conceptual specification for a two-stage wet scrubber system solution at the Proposed OTS is as follows (subject to the completion of a detailed engineering design):

1. The truck ingress and egress to the facility was identified as a critical point for the potential release of fugitive emissions from the facility. Therefore, a requirement of a well-sealed building operating with an air-lock system for truck ingress and egress would eliminate the release of potential of fugitive emissions from the facility. The building ventilation air would be regulated and managed via the OMS;
2. The treatment of the extracted building ventilation air through a two-stage wet scrubber system operating in series, and capable of treating 100,000m³/hr. This design airflow is equivalent to approximately four building air changes per hour (i.e., the rate at which the entire building volume is changed over with fresh air every hour);
3. A scrubber vessel diameter of up to 4.2m;
4. A nominated odour management footprint area of approximately 120-150m². The footprint area would be bunded and contain the scrubber vessels, pumps, intermediate bulk container, and ancillary equipment to support the operation of the scrubber system.
5. The ability to operate a single scrubber only (when required); and
6. A single discharge stack located at the roof level design with a high exit velocity for enhanced initial plume dispersion. By design of the proposed facility and OMS, the single discharge stack at roof level would be the only source of odour emission release to air.

The above process is designed to ameliorate the odour impacts of the activity. As a contingency measure, should odour present as an issue post installation of the above system, additives are able to be prescribed for dosing process to further mitigate odour.

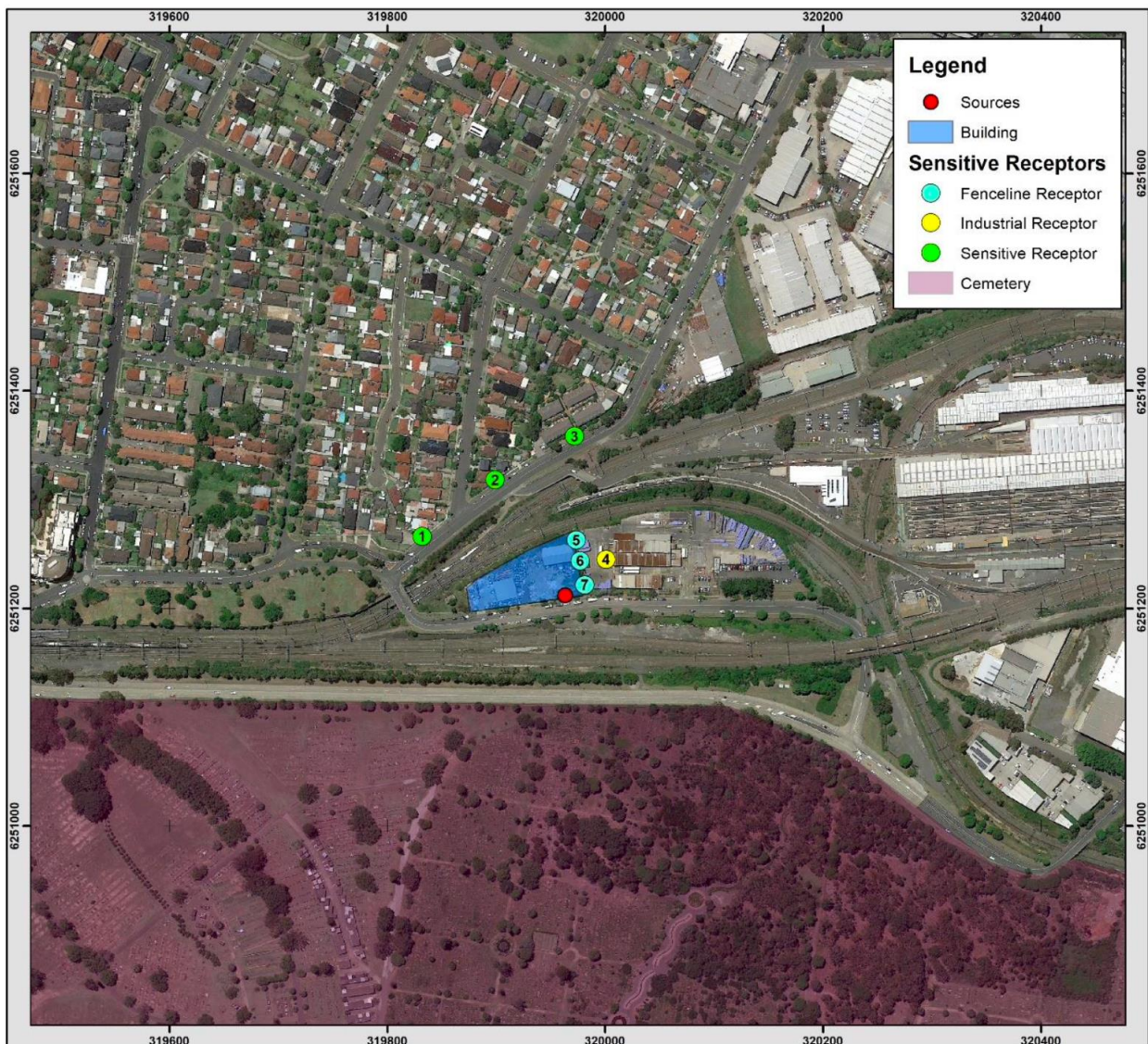
7.2.4 Impact Assessment

7.2.4.1 Odour

Based on the OMS concept design, dispersion modelling using CALMET and CALPUFF modelling systems were carried out by TOU to project the ground-level concentrations of pollutants predicted at sensitive receptors in the surrounding area.

The location of receptors in relation to the proposed facility is presented in Figure 15

Figure 15: Receptor locations utilised in the odour assessment



Source: TOU OIA (figure 5.4).

To model the from the OMS stack discharge, conceptual stack discharge parameters were specified for undertaking a sensitivity analysis in determining the optimal stack design as seen in Table 19.

Table 19: Conceptual Stack discharge parameters for the proposed OTS

Parameter	Unit	Value
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Exit Velocity	m/s	20
Stack Diameter	m	1.33
Stack Temperature	°C	25
Stack Height (above Ground level (a.g.l.))	m	12, 17, 20
*** Wake Affected (Building height = 10m)		

Source: TOU OIA (Table 3.1).

For the undertaking of a sensitivity analysis and determining an optimal stack design, three discharge odour concentration scenarios were run at various stack heights with the preferred OMS as described in section 7.2.3. The three concentration scenarios were as follows:

1. Discharge concentration of 250 ou and an odour emission rate (OER) of 6,945 ou.m³/s from a 12m stack (i.e., 2 m above roof level).
2. Discharge concentration of 375 ou and an OER of 10,417 ou.m³/s from a 17 m stack (i.e., 7m above roof level).
3. Discharge concentration of 500 ou and an OER of 13,889 ou.m³/s from a 20 m stack (i.e., 10m above roof level).

For a more detailed explanation of the methodology used refer to Appendix I.

For the Assessment, 2.0 ou (99%, P/M60) was selected as the odour impact assessment criteria (IAC) due to the urban land use in the vicinity of the Proposal site. The IAC represents the threshold levels at which an odour is considered to pose a potential impact to nearby sensitive receptors. For further explanation of how this value was derived please refer to the OIA report prepared by TOU (Appendix I: Section 4: Modelling and impact assessment guidance).

Based on the modelled results it was determined that a 12m a.g.l. stack would be most optimal design choice for two-wet scrubber OMS. The predicted ground-level odour concentrations under the optimal modelling scenario are presented in Table 20. The results of the dispersion modelling concluded that a stack discharge concentration of 250 ou from a 12m a.g.l. stack predicts concentration levels below the odour IAC at all residential receptors, industrial receptors and within the cemetery zone. The only exception being fence line receptor 5 which is of a general industrial use and therefore, not representative of a typically sensitive use. A visual representation of the modelling result of this scenario is presented as a contour plot in Figure 16.

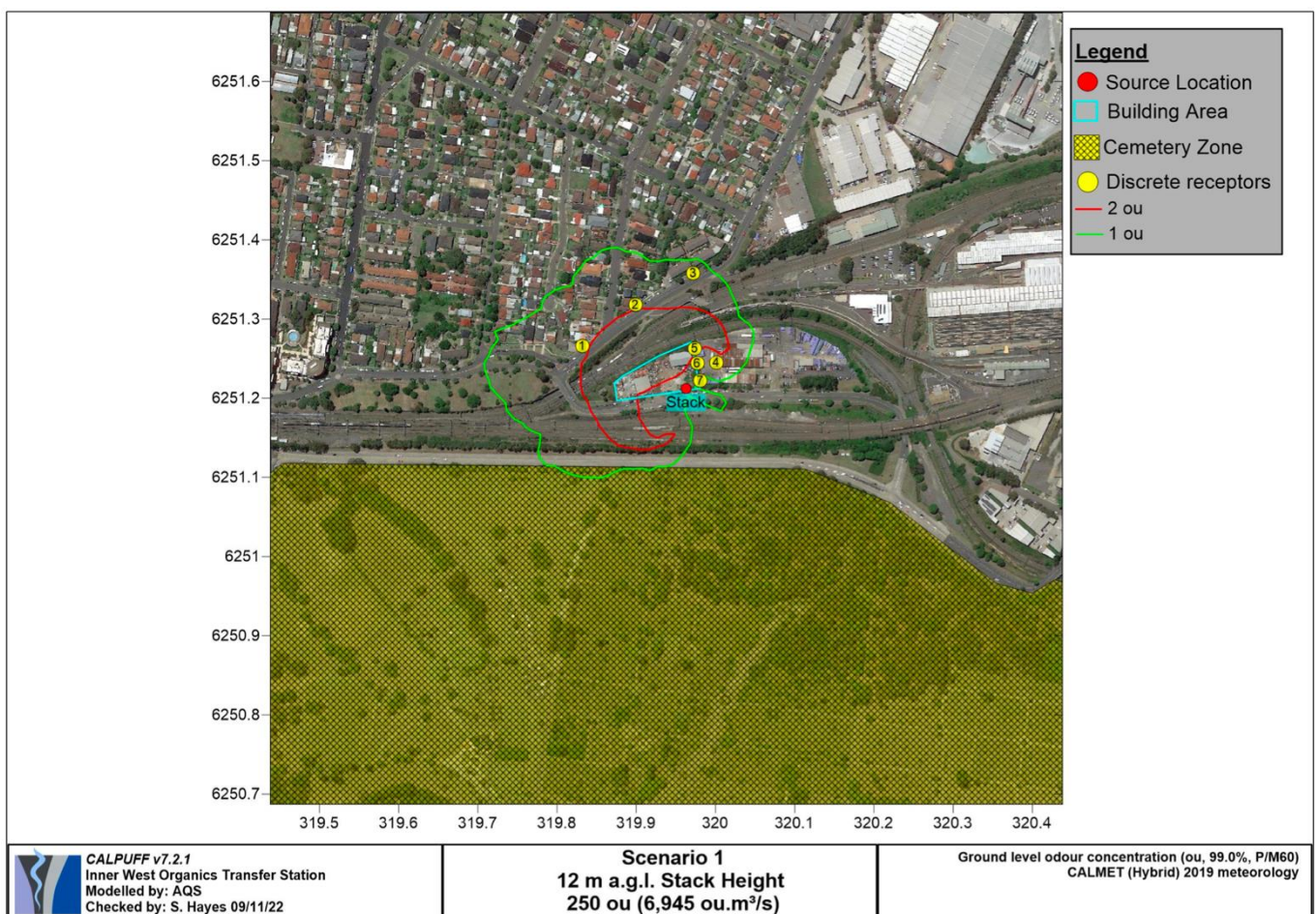
Table 20: Predicted ground-level odour concentrations (ou, 99%, P/M60)

Receptor Id	Type of Receptor	250 ou (6,945 ou.m ³ /s) 12 m a.g.l
1	Residential	1.4
2		1.6
3		1.1
4	Industrial	1.6

Receptor Id	Type of Receptor	250 ou (6,945 ou.m/s) 12 m a.g.l
5	Fence	2.2
6		1.6
7		0.9
Cemetery		1.0

Source: TOU OIA (Table 6.1).

Figure 16: Scenario 1 contour plot



Source: TOU OIA (Figure 6.1 – Scenario 1 contour plot).

Based on the conceptual design and assumptions, TOU's assessment identifies that the OMS for proposed transfer station would reduce emissions to the maximum extent achievable and satisfy *the Odour Technical Framework 2006* and *Approved Modelling Methods 2022* requirements. Given the adoption of scrubbing technology, the OMS is expected to achieve a stack discharge concentration of 250 ou or less. Therefore, a two-stage scrubber solution with a nominated stack height of 12m a.g.l is considered suitable to adequately minimise off-site odour impact risks for the Proposed OTS.

7.2.4.2 Particulates

Background air quality data was obtained from the nearby Lidcombe monitoring station. It was found that the annual average PM_{2.5} concentration in the local area was below the relevant criterion of 8µg/m³ for the 2022 year being recorded at 4.7µg/m³. While the maximum 24-hour average PM_{2.5} concentrations exceeded the relevant criterion of 25µg/m³ at times during the period reviewed.

The annual average PM₁₀ concentration in the local area was below the relevant criterion of 8µg/m³ for the 2022 year being recorded at 13.3µg/m³.

The proposed use would not result in exposure to high particulate producing activities as aside from traffic movements in and out of the site. All activities would be contained to the main industrial building, which is entirely enclosed, kept under negative pressure and airlocked to avoid fugitive emissions.

Overall, the proposed development is not expected to produce substantial impact on the generation of particulates given the use and type of materials being handled. Waste collection vehicles would not be particularly dusty and therefore, are not expected to cause an increase in the concentration of particles when visiting the site.

7.2.4.3 Greenhouse gas emissions

Potential sources of greenhouse gas (GHG) emissions include on-site combustion of diesel fuel, emissions of methane (CH₄) and carbon dioxide (CO₂) from breakdown of organic material in landfill and via, and on-site consumption of electricity.

The proposed development would assist in the viability for Sydney organic waste to be sent to composting facilities for further processing and composting has potential to lessen the impact of greenhouse gas emissions through the aerobic decomposition of organic matter, producing CO₂ as compared to the anerobic decomposition of organic matter in landfill, which produces CH₄. Methane is a more potent GHG, with a global warming potential 28-34 times that of CO₂, as a result the project would likely facilitate an overall net decrease in greenhouse gas emissions (as CO₂ equivalent) associated with the activities at the site. Furthermore, the bulking and efficient transfer of organic waste through the proposed transfer station out to facilities generally located on the fringes or outside of the SMA would reduce the GHG emissions from truck transport

7.2.5 Summary and mitigation measures

The odour impact assessment found that the impacts due to the proposed activity are below relevant criteria levels at the receiver locations. An increase in odour would occur from the southwest to the northern region of the site. It is noted however that the odour levels predicted would remain below the relevant criteria.

Predicted dust levels in the surrounding environment are low and not likely to exceed any of the relevant criteria.

The management of organic material and bulking of waste for the efficient transfer out of the SMA would result in a decrease in GHG emissions.

Mitigation measures proposed for the development include:

- All input of organic waste is to occur within the receival area located inside the industrial building;
- No stockpiling of raw putrescible materials would be stored over 24-hours under normal operating conditions;
- The delivery schedule of the incoming or outgoing trucks would be coordinated to avoid the queuing of trucks for extended periods of time on site;
- Engines of on-site vehicles and plant are to be switched off when not in use;

- Fixed, well laid out paths for vehicles delivering and handling material to minimise fugitive dust, spillage and potential fugitive odour would be implemented;
- Spill management procedures to ensure immediate clean-up of any spill;
- An odour complaint logbook would be maintained and in the event of a complaint, an immediate investigation would be conducted of any odour sources, with appropriate actions taken to eliminate any identified excessive odour source;
- Installation of two in-series scrubber vessels as an odour management system according to TOU recommendation;
- Vehicles and plant are to be fitted with pollution control devices in accordance with manufacturer specifications;
- Maintenance and service of vehicles according to manufacturer's specifications;
- Watering of trafficked areas and exposed areas; and
- Regular cleaning of all hard stand areas.

7.3 Noise and Vibration

7.3.1 SEARs Requirements

The SEARs issued for this proposal identified “noise and vibration” as a key issue requiring that the EIS includes the following:

- a description of all potential noise and vibration sources during construction and operation, including road traffic noise and noise from vehicles entering, leaving, and moving within the site.
- 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.

7.3.2 Background

The EPA *Acoustic Planning Guidelines, Noise Policy for Industry (EPA 2017)* (NPfI) applies to scheduled industrial premises, including waste processing facilities. The policy aims to ensure noise impacts associated with the proposal are evaluated and managed in a consistent and transparent manner.

A Noise Impact Assessment was prepared by Pulse White Noise Acoustics Pty Ltd to determine the impacts of the proposed development on the nearby receivers. The report includes receptor identification, unattended noise measurements, noise criteria derivation, and conceptual noise control measures recommended for the facility to address any potential noise and vibration impacts. The report is included in Appendix J.

7.3.3 Existing Environment

The site exists in an established industrial block. The predominant land use near to the site is a mix of industrial, residential, and state-owned railway. The nearest sensitive receiver (zoned R3 – Medium Density Residential) is a dwelling located to the North-West approximately 60m the site boundary and 75m from the exact location of the proposed warehouse development. There is an additional industrial receiver situated directly next door to the east of the site (zoned IN1: General Industrial). See Figure 17 for a summary of nearby receptors and noise logger location.

Figure 17: Nearby Receivers and Location of Noise Logger



Source: Pulse White Noise Acoustics, 2023 (Figure 3: location of considered receivers).

The noise environment for the surrounding area in which the proposal is located is characterized by the NSW NPI as ‘Suburban Residential’. This area classification defines the recommended amenity noise levels for the considered receptors in the vicinity to the site. The recommended amenity noise levels (dbA) are defined in Table 21:

Table 21: Summary of Recommended Amenity Noise Levels

Type of Receiver	Indicative Noise Amenity Area	Time of day ¹	Recommended Amenity Noise Level (LA _{eq, period}) ² (dBA)
Residence	Suburban	Day	55
		Evening	45
		Night	40
Industrial		When in use	70
Note 1:	For Monday to Saturday, Daytime 7:00am – 6:00pm; Evening 6:00pm -10:00pm; Night-time 10pm -7:00am. On Sundays and Public Holidays, Daytime 8:00am – 6:00pm; Evening 6:00pm – 10:00pm; Night-time 10:00pm – 8:00am.		
Note 2:	The LA _{eq} is the energy average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time varying sound constant.		

Source: Pulse White Noise Acoustics, 2023 (Table 4-1 NSW NPI – Recommended LA_{eq} Noise Levels from Industrial Noise Sources)

7.3.4 Impact Assessment

Noise Sources

During the operational phase of the facility, noise is anticipated to be generated from truck movements, operational machinery and equipment. Noise expected to be generated during the construction phase includes earthworks required for ground leveling, the construction of the warehouse facility, construction of the hardstand parking area and landscaping gardening along the site's boundaries. Potential traffic noise due to increased vehicle movements along Church Street has also been assessed.

Hours of Operation

Operating hours for the proposed facility are:

- 6 am – 10pm Monday to Friday.
- 8am – 6pm on Saturday.
- No operations on Sunday and public holidays.

Access to the site for the delivery of input materials may occur at any time.

Normal construction would take place within standard daytime hours as follows:

- Monday to Friday 7am to 6pm.
- Saturday 8am to 1pm.
- No work on Sundays or public holidays.

Any required blasting works would be conducted as follows:

- Monday to Friday 8am to 5pm.
- Saturday 9am to 1pm.
- No work on Sundays or public holidays.

Project Trigger Level

Based on the NPI NSW criteria, Pulse White Noise Acoustics have nominated project trigger noise levels for the proposal. The project trigger level is the threshold above which a noise emission would trigger a management response. The amenity and intrusive criterion are nominated for the purpose of determining the operational noise limits for noise sources associated with the development which can potentially affect noise sensitive receivers. A general summary of the project trigger levels is presented in the Table 22.

Table 22: Summary of Project Trigger Levels

Type of Receiver	Time	Defined Project Trigger Level (dBA)
Residential Receivers	Day	56 dBA
	Evening	53 dBA
	Night	46 dBA
Industrial Receivers	When in use:	68 dBA

Source: Pulse White Noise Acoustics, 2023. (Table 4-2 External noise level criteria in accordance with the NSW NPI)

7.3.4.1 Operation

A more detail summary of methodologies used is presented in Pulse White Noise Acoustics Report (see Appendix J).

The operational noise assessment for this proposal has been assessed against the NPfi. The NPfi provides guidance on the assessment of operational noise impacts associated with the project operation. The assessment procedure has two components:

- Controlling intrusive noise impacts in the short-term for residences; and
- Maintaining noise level amenity for residences and other land uses.

Design criteria within the NPfl define project intrusiveness by the project noise trigger level. The trigger level is the point above which a noise emission would trigger a management response. It is assessed as L_{Aeq} over the worst 15-minute period and is calculated to the background level plus 5dB(A).

The NPfl recommends amenity noise levels (L_{Aeq} period) for various receivers including residential, commercial, industrial receivers and sensitive receivers such as schools, hotels, hospitals, churches and parks. These “recommended” amenity noise levels represent the objective for total industrial noise experienced at a receiver location.

When assessing a single industrial development and its impact on an area, “project” amenity noise levels apply. The project noise level account for the existing plus new noise and is determined by:

$$\text{Project amenity noise level} = \text{Recommended amenity noise level} - 5\text{dB(A)}.$$

However, given that the intrusiveness noise level is based on a 15-minute assessment period and the project amenity noise level is based on day, evening and night assessment periods, the NPfl provides the following guidance on adjusting the $L_{Aeq,(\text{period})}$ level to a representative $L_{Aeq,15 \text{ minute}}$ level in order to standardise the time periods.

$$L_{Aeq(15\text{minute})} = L_{Aeq(\text{period})} + 3\text{dB(A)}.$$

Pulse White Noise Acoustics has calculated the external noise level criteria for the proposed development in accordance with the NSW NPfl. A summary is presented in Table 23.

Table 23: External Noise Level Criteria

Location	Time of day	Project Amenity Noise Level, $L_{Aeq, \text{period}}^1$ (dBA)	Measured $L_{A90, 15 \text{ min}}$ (RBL) ² (dBA)	Measured $L_{Aeq, \text{period}}$ Noise Level (dBA)	Intrusive $L_{Aeq, \text{period}}$ Criterion for New Sources (dBA)	Amenity $L_{Aeq, 15 \text{ min}}$ Criterion for New Sources (dBA) ^{4,5}
Residence	Day	50	51	66	56	59
	Evening	40	48	64	53	57
	Night	35	41	62	46	55
Industrial Receiver	When in use	65	-	-	-	68
Note 1:	Project Amenity Noise levels are corresponding to “suburban” areas, equivalent to the Recommended Amenity Noise Levels minus 5 dBA					
Note 2:	The L_{A90} Background Noise Level or Rating Background Level					
Note 3:	Project Noise Trigger levels are Shown in bold.					
Note 4:	According to Section 2.2 of the NSW NPI, the $L_{Aeq, 15 \text{ min}}$ is equal to the $L_{Aeq, \text{period}} + 3\text{dB}$					
Note 5:	Where the measured L_{Aeq} noise levels are more than 10 dB higher than the Project Amenity Criterion, then the 15 minute Amenity Criteria is equal to the measured $L_{Aeq, \text{period}}$ noise levels minus 10dBA + 3db to convert from the measurement “period” to a 15 minute criteria.					

Source: Pulse White Noise Acoustics, 2023 (Table 4-2 External noise level criteria in accordance with NSW NPI).

To assess the operational noise impacts to nearby receivers, Pulse White Noise Acoustics set up a noise receiver over a 14-day period located at 1 Bachell Ave Lidcombe, 2141. This location is deemed to be the most potentially affected residence. Acoustic modelling was conducted based on the measurements taken at this location to determine whether the proposed operations would trigger the NPfl threshold at the premises of all identified nearby receivers. The recorded levels as L_{Aeq} at a 15-minute maximum, are

displayed in Table 24 and predicted noise contours ($L_{Aeq(15\text{ minuet})}$) at nearby receivers are also represented in Table 24.

Table 24: Operational Noise Levels at identified receiver’s premises

Receivers	Predicted External Noise Levels L_{Aeq} 15 min (dBA)	NPfl Project Trigger Noise Levels L_{Aeq} 15 min (dBA)	Exceeding?
Residential – R1	36	46	No
Residential – R2	37		No
Residential – R3	38		No
Residential – R4	38		No
Residential – R5	39		No
Residential – R6	38		No
Residential – R7	39		No
Residential – R8	38		No
Industrial – R9	45	68	No

Source: Pulse White Noise Acoustics, 2023 (Table 5-4 Predicted Noise Levels, Worst-Case Operational Scenario, L_{Aeq} (15 minute)).

Figure 18: Predicted Noise Contours – Operational Scenario Day ($L_{Aeq}(15\text{ minuet})$)



Source: Pulse White Noise Acoustics, 2023. (Figure 5: Predicted Noise Contours – Operational Scenario Day, L_{Aeq} (15 minute))

The noise scenario used to assess the site was considered a worst-case scenario, with all trucks and heavy machinery in operation simultaneously – which is unlikely to occur during typical operations on site. The findings of the Pulse White Noise Acoustics report determined that operation of the site is not predicted to exceed the noise trigger levels for this project.

7.3.4.2 Road Traffic Noise Assessment

Under section 3.4.1 of the *NSW Road Noise Policy*, any increase in the total traffic noise level that may occur as a result of development should be limited to 2 dB above the option not to proceed with the development.

As part of this development, additional vehicle movements are expected to increase as traffic travels to and from the site. It is estimated that for the other surrounding roadways the proportion of traffic from the development would be of low impact and therefore road traffic noise is not assessed.

A 2dB increase equates to approximately a 60% increase in total traffic along the subject road. Any proportional traffic increase along Church Street from the development is predicted to be far smaller than this amount. Therefore, it is predicted that road traffic noise levels would not increase by 2 dB or more. The proposed road movements are thus predicted to comply with the Road Noise Policy and no further noise mitigation measures are recommended.

7.3.4.3 Construction Noise

The DECC *Interim Construction Noise Guideline* (ICNG) provides guidelines for the assessment and management of construction noise. The *Road Noise Policy* refers to the use of the ICNG for the assessment of construction noise impacts. The ICNG focuses on applying a range of work practices and management strategies to minimise construction noise impacts rather than focusing on achieving numeric noise levels which is not always practical on large infrastructure projects.

The main objectives of the ICNG are to:

- Identify and minimise noise from construction works;
- Focus on applying all 'feasible' and 'reasonable' work practices to minimise construction noise impacts;
- Encourage construction during the recommended standard hours only, unless approval is given for works that cannot be undertaken during these hours;
- Reduce time spent dealing with complaints at the project implementation stage; and
- Provide flexibility in selecting site-specific feasible and reasonable work practices to minimise noise impacts.

Construction noise assessment goals presented in the ICNG are referenced to Noise Management Levels (NMLs) for residential, sensitive land uses and commercial/industrial activities.

The rating background level (RBL) is used when determining NMLs. The RBL is the overall single-figure background noise level measured in each relevant assessment period (during or outside the recommended standard hours). The term RBL is described in detail in the *NSW Noise Policy for Industry* (EPA, 2017). As a guide, the difference between the internal noise level and the external noise level is typically 10 dB with windows open for adequate ventilation. Pulse White Noise Acoustics have calculated the relevant NMLs for this proposal presented in

Table 25 and the NMLs as the basis for the conducted acoustic assessment in Table 26.

Table 25: Relevant Noise Management Levels

Time of day	Management Level $L_{Aeq(15min)}^1$	How to apply
<p>Recommended Standard Hours: Monday to Friday 7am to 6pm Saturday 8am to 1pm No work on Sundays or public Holidays</p>	<p>Noise affected RBL + 10db</p>	<p>The noise affected level represents the point above which there may be some community reaction to noise.</p> <ul style="list-style-type: none"> - Where the predicted or measured L_{Aeq} (15min) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. - The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the excepted noise levels and duration, as well as contact details.
	<p>Highly noise affected 75 dB(A)</p>	<p>The highly noise affected level represents the point above which there may be strong community reaction to noise.</p> <ul style="list-style-type: none"> - Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: <ul style="list-style-type: none"> • Times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences • If the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
<p>Outside Recommended Standard Hours</p>	<p>Noise affected RBL + 5 dB</p>	<ul style="list-style-type: none"> - A strong justification would typically be required for works outside the recommended standard hours. - The proponent should apply all feasible and reasonable work practices to meet the noise affected level. - Where all feasible and reasonable practices have been applied and noise is more than 5 dB(A) above the noise affected level, the proponent should negotiate with the community.

Note 1: Noise levels apply at the property boundary that is most exposed to construction noise, and at a height of 1.5m above ground level. If the property boundary is more than 30m from the residence, the location for measuring or predicting noise levels is at the most noise-affected point within 30 m of the residence. Noise levels may be higher at upper floors of the noise affected residence.

Source: Pulse White Noise Acoustics (Table 4-4 Noise at Residents Using Quantitative Assessment).

Table 26: NMLs as basis for the acoustic assessment

Type of Receiver	Noise management level (LAeq,15min) dB(A) Standard Hours
	Monday to Friday: 7 am to 6 pm Saturday: 8 am to 1 pm
Residential Receivers	61

Source: Pulse White Noise Acoustics (Table 4-5 NMLs as basis for the acoustic assessment).

The construction hours of the proposed development would only fall under the recommended standard hours as outlined in the ICNG. As no construction is expected to occur outside of standard hours, a sleep disturbance assessment for construction noise is not required.

7.3.5 Vibrational Impacts

Individuals can detect building vibration values that are well below those that can cause any risk of damage to the building or its contents. Given that there is substantial setback from the nearest receivers and that the scale of both construction and operation is relatively minor, the risk of impact from vibrational sources is considered low and a vibrational impact assessment is not deemed necessary.

7.3.6 Summary and mitigation measures

The project would adopt the recommendations in the Pulse White Noise Acoustics report.

7.3.6.1 Construction and Demolition

- Undertake construction works during standard hours as defined in the ICNG;
- Use appropriately sized plant and equipment;
- Identify when high noise-generating activities are likely to take place, and conduct this work during times of least noise sensitivity as agreed through community consultation; and
- Progress noise monitoring to be conducted during construction works to provide feedback to site management as to the levels of noise emitted from the site.
- Work practices in accordance with Section 6 of the ICNG and Section 4 of AS2436.

7.3.6.2 Operation

- The building would be treated to attenuate noise;
- The model has assumed floors and walls to be constructed from concrete; and
- The warehouse ceiling is to be treated with acoustic absorption panels with properties as outlined in Table 27, or better – such as Megasorber panels.

Table 27: Properties of assumed roof treatment material

Octave Band Frequency, Hz						
Rating	125	250	500	1k	2k	4k
NRC 0.86	0.11	0.60	0.96	0.94	0.92	0.82

Source: Pulse White Acoustics (Table 3 Properties of assumed roof treatment material).

7.4 Water

7.4.1 SEARs Requirements

The SEARs issued for this proposal identified “water” as a key issue requiring that the EIS includes the following:

- 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 *Water Act 1912* and/or the *Water Management Act 2000*
- an assessment of potential impacts on floodplain and stormwater management and any impact to flooding in the catchment
- a detailed site water balance
- an assessment of potential impacts on the quality and quantity of surface and groundwater resources
- details of the proposed stormwater and wastewater management systems (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts
- a description and appraisal of impact mitigation and monitoring measures.

7.4.2 Background

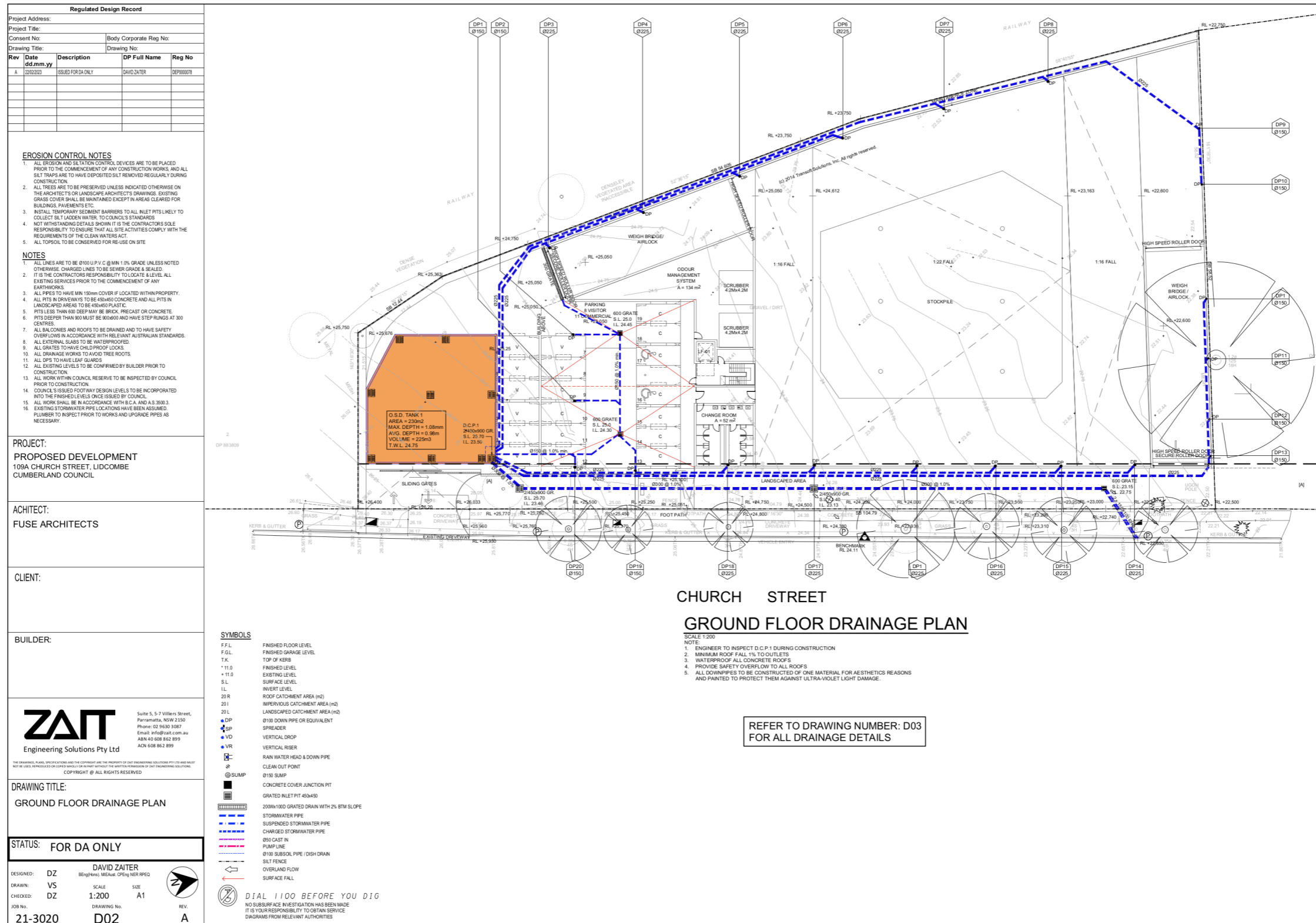
A stormwater concept plan and erosion management plan was produced by Zait Engineering Solutions (see Appendix K) to assist the design and environmental assessment of this project. The impact assessment below draws from the information presented in the attached plans.

The Stormwater Management Strategy assesses surface runoff of the entire site to ensure there is adequate capacity to manage dirty runoff (see stormwater plan presented as Figure 19).

The site has an average elevation of 27m. The topography of the site is relatively flat, sloping towards the northeast.

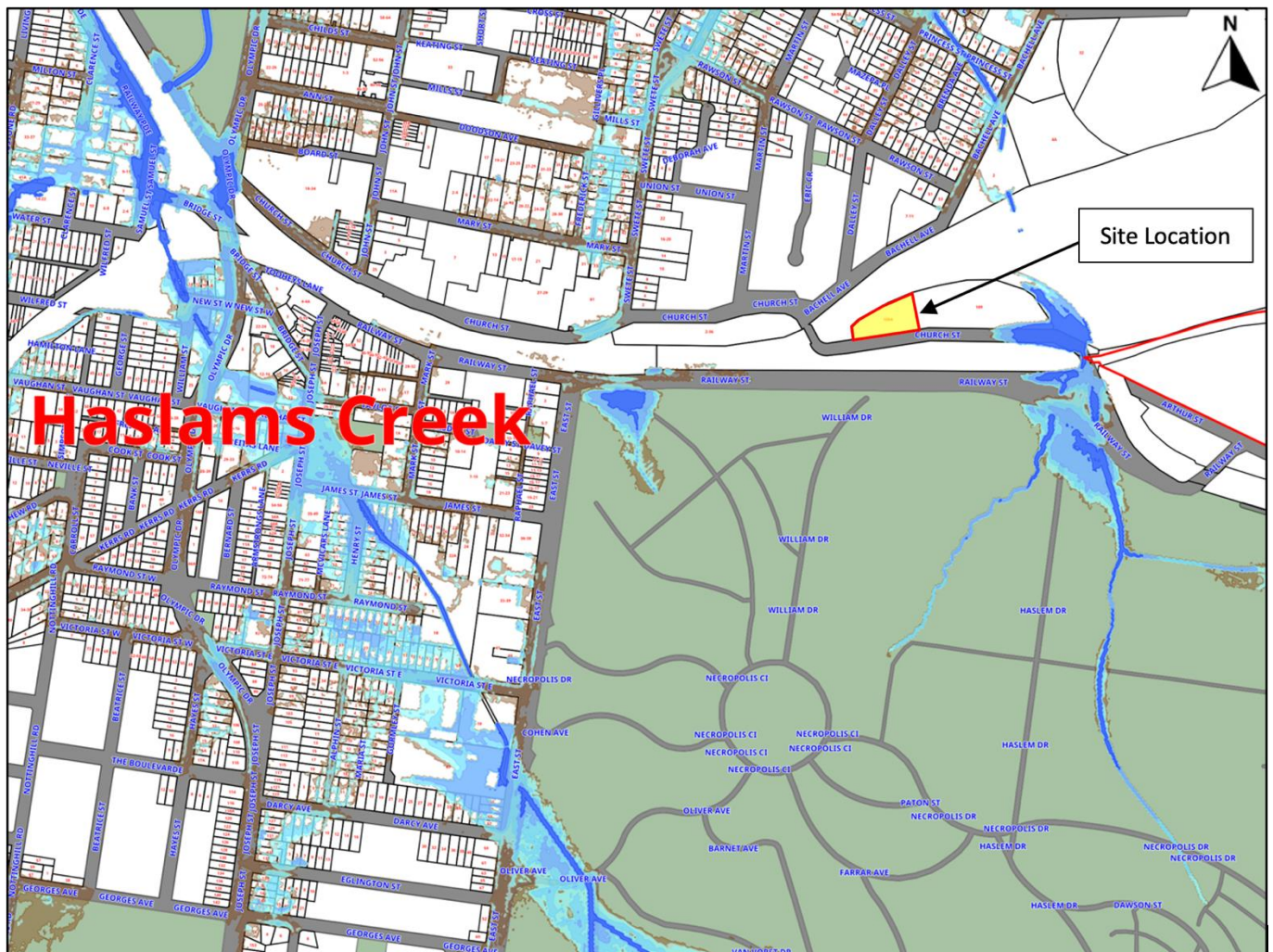
The catchment areas of the site are shown in Figure 20. Under existing conditions, no catchments run through the site. The closest catchment is situated 250m east of the site, on the neighbouring property’s eastern boundary. This is connected to the Haslams Creek catchment and directly borders the Powells Creek catchment to the east. Both of these catchments flow downstream into the Parramatta River.

Figure 19: Schematic layout of proposed storage system



Source: Zait Engineering Solutions, 2023.

Figure 20: Site catchments



Source: Cumberland Council Catchment and 1%AEP Depth Map 8.

Natural surface runoff in the catchment generally occurs as sheet flow from the upper catchment areas. During storm events, surface runoff is initially collected in the natural depressions and gullies across the catchment. However, when the storage capacities of these natural depressions are exceeded, overflows would occur.

An assessment of the site's groundwater quality has been undertaken in section 7.5 of this report.

7.4.2.1 Georges River Catchment

NSW Government provides Water Quality and River Flow Objectives (WQRFO) for the proposed site falling within the Georges River Catchment.

The water quality objectives for Urban areas within the Georges River Catchment include:

Total phosphorus	Upland rivers: 20 µg/L
Total nitrogen	Upland rivers: 250 µg/L
Turbidity	Upland rivers: 2–25 NTU

Visual clarity and colour	Natural visual clarity should not be reduced by more than 20%. Natural hue of the water should not be changed by more than 10 points on the Munsell Scale.
Surface films and debris	Oils and petrochemicals should not be noticeable as a visible film on the water, nor should they be detectable by odour. Waters should be free from floating debris and litter. The natural reflectance of the water should not be changed by more than 50%.

River Flow Objectives:

- Maintain Wetland Floodplain inundation
- Maintain natural flow variability
- Maintain natural rates of change in levels
- Minimise effects of weirs and other structures

The proposed development is within the urban stormwater system. It would not cause changes to the water quality or flow of the of the Georges River Catchment, when considered with regard to the proposed mitigation measures below.

7.4.2.2 Cumberland DCP

Stormwater Quality Targets are outlined in Section 7 of the Cumberland Council DCP (2021) as:

Table 28: Stormwater quality targets Cumberland DCP

Stormwater quality targets		
Pollutant	Description	Reduction in Load
Litter e.g. cans, bottles, wrapping materials, food scraps	All anthropogenic materials with a minimum dimension >5mm	90%
Coarse sediment	Coarse sand and soil particles (<0.5mm diameter)	85%
Nutrients	Total phosphorous nitrogen	90%
Fine particles	Coarse sand and soil particles (<0.05mm diameter)	85%
Cooking oil and grease	Free floating oils that do not emulsify aqueous solutions	90%
Hydrocarbons inc. motor fuels, oils and greases	Anthropogenic hydrocarbons that can be emulsified	90%

7.4.3 Impact Assessment

It is of high importance to safeguard the quality of surrounding waterways by avoiding contact between stormwater and waste. The sections below address the various aspects of water management and potential contamination.

7.4.3.1 Surface and groundwater impacts

The Site is not located in proximity to watercourses or riparian areas, nor is there potential to discharge to groundwater, or groundwater-dependent communities.

Site stormwater drainage is channelled through a pipe drainage network to Prospect Creek. Protection of the Creek depends on upstream water quality controls. This assessment explores management of stormwater quality through:

- Flood controls;
- Management of throughputs to avoid contact with stormwater;
- Control of leachate by storing and processing materials within the warehouse;
- Use of erosion and sedimentation controls during construction activities;
- Containment of firewater using a stormwater valve to avoid downstream discharge; and
- Installation of filtration baskets to improve stormwater quality from the Site.

7.4.3.2 Leachate

To address leachate generation through contact with stormwater, all materials would be stored and handled within the warehouse.

Liquids within the waste stream are generally absorbed by dry organic material (garden organics). Should leachate be generated by contaminants, such as liquid within some foods, spillage would be cleaned up with a wet vacuum. The storage area would be designed with a sump to collect any leachate to be pumped and transported offsite for management.

7.4.3.3 Pollutants

The potential pollutants to ground or water may include vehicle oils from idling trucks, leachate and/or gross litter pollutants. The quantities of pollutants are minor and would not result in serious harm.

Vehicle emissions would be controlled by regular maintenance by the vehicle operator. Leachate is unlikely to be produced and would be controlled within the warehouse through cleanup measures. Litter would be controlled by regular site cleanup to prevent it migrating to waterways.

Diesel fuel would be stored in a self-bunded container. Spills of fuels or hazardous liquids would be cleaned up immediately in accordance with a *Pollution Incident Response Management Plan* (PIRMP).

The proposal includes the installation of stormwater quality improvement devices (SQIDs) to filter contaminants and ensure that stormwater quality is protected downstream. These include:

- An on site detention tank.
- Grates on stormwater inlets to capture gross pollutants.
- Filter screens.

7.4.3.4 Water Quality

Runoff from the roof and external hardstand is diverted into stormwater pits and directed through a pipe system to the southern boundary, where it flows through a culvert to join the trunk drainage system. Stormwater is managed separately to wash water and would not come into contact with organic wastes.

7.4.3.5 Water Resources

The Proposal would not compromise the availability of water resources for use. Processes would be dry, and therefore water use would be limited to staff needs, fire suppression and cleaning / maintenance.

Water resources would be protected from pollution by containment and filtration, so that water leaving the site is in accordance with Council standards for water quality. Overall, the scrubber vessel is expected to have a working volume of approximately 2,000-3,000 litres of scrubbing liquor, with an expected water make-up consumption of 500-600 L/hour.

It is expected that rainwater tanks should be incorporated into the development as part of conditions for construction.

7.4.3.6 Construction Management - Erosion and Sedimentation Controls

Potential impacts associated with ground works, construction of the proposed facility and infrastructure, construction of hardstand and parking areas and the provision of stormwater infrastructure would be controlled by the Erosion Control Plan provided by Zait Engineering Solutions, provided as Appendix K. The Erosion Control Plan has been prepared in accordance with *Managing Urban Stormwater: Soils & Construction (Landcom, 2004)*.

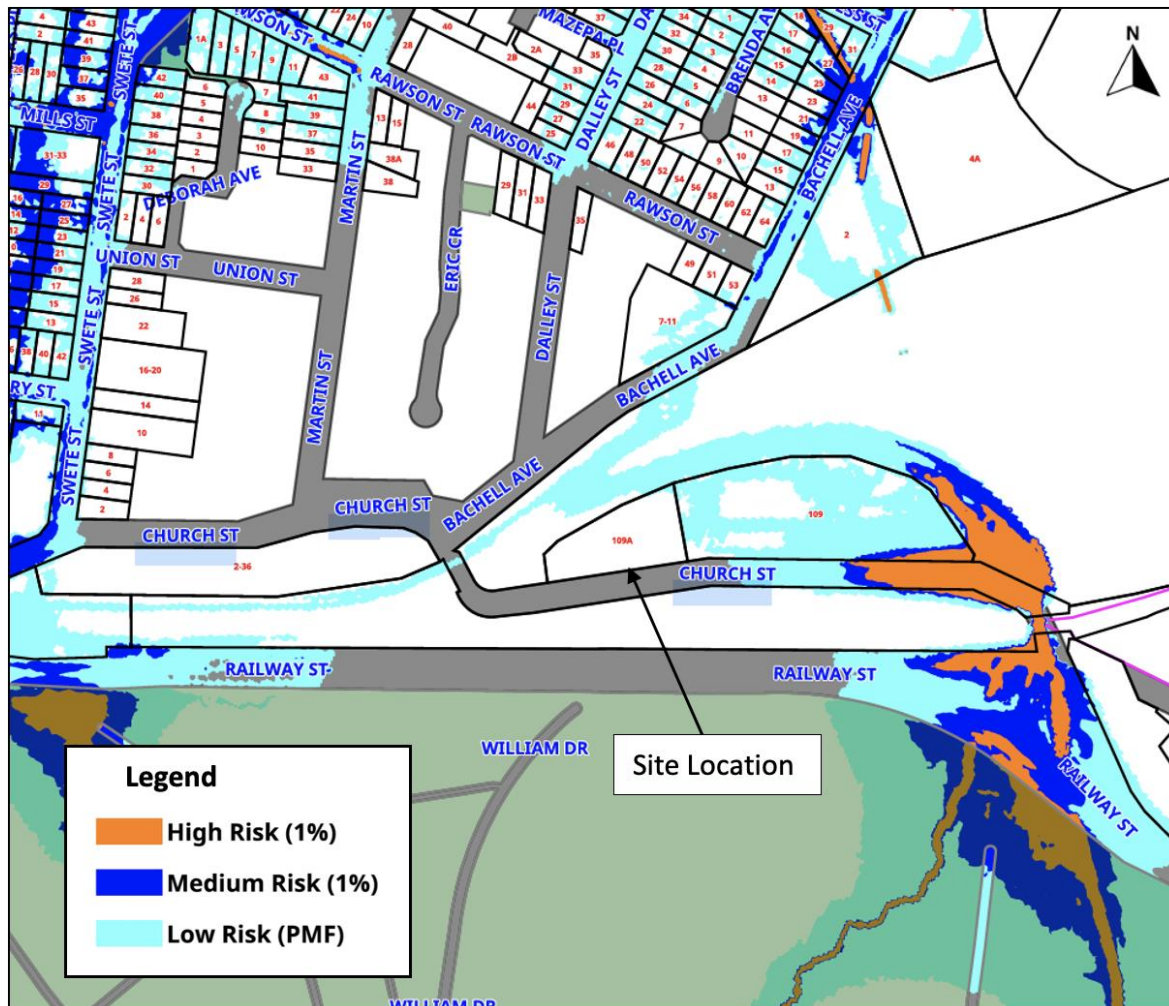
7.4.3.7 Flooding

Flood risk for the site was assessed using the Cumberland City Council High Risk Area Map 4 Flood Risk Precinct map (Figure 21). Overall, the site is not affected by flood, however, there is a very small area (<10m²) in the north-eastern corner of the site boundary that is classified as low risk under the probable maximum flood (PMF) level.

The proposed development would not impede overland flows or cause additional flood impacts to adjacent sites. The construction of the building would not permit ingress of water at the PMF level, thereby addressing the potential impacts of climate change at the location.

On the basis of the above, no specific measures are expected to be necessary to address flooding at the site given the limited potential risk at the site.

Figure 21: Flood risk mapping



Source: Cumberland City Council High Risk Area Map 4 Flood Risk Precinct Map.

7.4.4 Summary and mitigation measures

The following mitigation and management measures would be employed to protect water quality:

- Throughputs would be loaded, stored and processed within the warehouse to avoid contact with stormwater;
- Containment of firewater would be achieved using a stormwater valve to avoid downstream discharge;
- Filtration screens would be installed on stormwater pits to maintain stormwater quality from the Site;
- A Gross Pollutant Trap would be installed at the end of site drainage to collect litter;
- Construction impacts would be controlled by an Erosion and Sedimentation Control Plan, in accordance with Managing Urban Stormwater: Soils & Construction (Landcom, 2004); and
- Spills would be cleaned up immediately in accordance with a Pollution Incident Response Management Plan.

7.5 Soils & Ground Water

A Report was prepared by Foundation Earth Sciences (FES) to assess the potential impacts regarding soil and groundwater contamination as a response to the SEARs requirements, in accordance with the provisions of SEPP 55.

7.5.1 SEARs Requirements

The SEARs issued for this proposal identified the “soil and water” as a key issue requiring that the EIS includes the following:

- 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 *Water Act 1912* and/or the *Water Management Act 2000*
- an assessment in accordance with ASSMAC Guidelines for the presence and extent of acid sulfate soils (ASS) and potential acid sulfate soils (PASS) on the site and, where relevant, appropriate mitigation measures
- an assessment of potential impacts on the quality and quantity of surface and groundwater resources
- a characterisation of the nature and extent of any contamination on the site and surrounding area including an assessment against the provisions of SEPP 55
- a description and appraisal of impact mitigation and monitoring measures.

7.5.2 Background

The Soil Landscape Map viewed on NSW eSpade indicates that the site is located in the ‘Blacktown Area’. The soil is gently undulating rises on Wianamatta Group Shales and Hawkesbury shale. Local relief is to 30m, slopes are usually at a 5% gradient with broad rounded crests and ridges with gently inclined slopes. Before clearing of the native vegetation, the area was formerly eucalypt woodland and tall open-forest (wet sclerophyll forests).

The soil types of this area are formed primarily in colluvium and alluvium. The topsoil (bt1) consists of friable brownish-black loam that ranges from slightly acidic (5.5 pH) to neutral (7.0 Ph). As the soil profile’s horizons deepen, the soil composition transitions from hard setting brown clay loam (bt2), to strongly pedal mottled brown light clay (bt3), to a plastic mottled light grey clay (bt4).

FES conducted a search of known contaminated land registers within NSW to determine any prior history of contamination on site. A search of the NSW EPA Database of contaminated sites revealed that the subject site is not listed and no listings exist for sites within the suburb of Lidcombe. The NSW EPA POEO Register had not listed the site on its register. The NSW EPA Notified Contaminated Sites database was also searched, it was concluded that one site existed within the suburb of Lidcombe but was not considered cause for any concern as it is located over 500m from the proposal site.

FES have reviewed the site using the “Prospect Parramatta” map which indicates that the site is located in a “No Known Occurrence” area of acid sulphate soil material within the soil profile. The Cumberland Local Environmental Plan 2021 – Acid Sulfate Soils Risks Class Map indicated that the site lies within a Class 5 ASS area. Acid Sulfate Soils are not typically found in Class 5 areas. Areas classified as Class 5 are located within 500 metres of adjacent class 1,2,3 or 4 land.

To assess the contamination status of the soils on site, FES conducted an intrusive soil assessment in accordance with the NSW EPA document National Environmental Protection (Assessment of Site Contamination Measure) (NEPM) (Amendment 2013). Soils sampled across the Site were assessed against the Site Acceptance Criteria (SAC) provided by the National Environment Protection (Assessment of Site Contamination) Measure (NEPM 2013) Table 1A – HIL D – Commercial / Industrial.

FES collected 19 primary soil samples from 13 borehole locations spread across the site on the 15th of August 2022 for laboratory testing. Samples were tested for concentrations of heavy metals, total recoverable hydrocarbons, BTEX, ploy-aromatic hydrocarbons, organochlorine pesticides, organophosphorus pollutants, polychlorinated biphenyls, PFAS and Asbestos. A summary of the specific concentrations assessed as part of the laboratory analysis are presented below:

- **Heavy Metals:**
 - Arsenic (As)
 - Cadmium (Cd)
 - Chromium (Cr)
 - Copper (Cu)
 - Lead (Pb)
 - Mercury (Hg)
 - Nickel (Ni)
 - Zinc (Zn)
- **BTEX:**
 - benzene
 - toluene
 - ethylbenzene
 - xylene
- **Organochlorine Pesticides:**
 - DDT + DDD + DDE
 - Aldrin
 - Dieldrin
 - Chlordane
 - Endosufan
 - Endrin
 - Heptachlor
 - HCB
 - Methoxychlor
 - Toxaphene
 - DDT
- **Total Recoverable Hydrocarbons:**
 - F1 (C₆-C₁₀)²
 - F2 (>C₁₀-C₁₆)³
 - F1(C₆-C₁₀)
 - F2 (C₁₀-C₁₆)
 - F3 (C₁₆-C₃₄)
 - F4 (C₃₄-C₄₀)
- **Poly Aromatic Hydrocarbons:**
 - Benzo(A)Pyrene
 - Cariogenic PAHs (as BAP TEQ)
 - Total PAH
 - Naphthalene
- **Organophosphorus Pollutants:**
 - Chlorpyrihos
 - Total OPP(mg/kg)
- **Polychlorinated Biphenyls:**
 - Total PCB (mg/kg)
- **PFAS:**
 - Sum of PFOS and PFHxS
 - PFOA
 - PFOS
- **Asbestos:**
 - %w/w (AF /FA)
 - %w/w (ACM)
 - Asbestos ID

A summary of the soil sampling laboratory results can be found in Figure 22. The soil assessment lab results indicated that the majority of soil samples taken on site recorded contaminant concentrations below the adopted detection limits and/or the relevant guideline criteria. One exception was found at borehole BH10, where concentrations of total recoverable hydrocarbons, TRH F2 and TRH F3, exceeded the ESL criteria at a depth of 0-0.1m. No identified asbestos was detected in any samples analysed. No fibro cement fragments were observed in the fill material located within any boreholes sampled.

FES have concluded that this sample location (BH10) does not require any further remediation as:

- The 95% UCL of mean concentrations of TRH F2 and TRH F3, for samples from the fill soil materials, were below the assessment criteria those being; the standard deviations were all less than 50% of the assessment criteria and no single concentration exceed the assessment criteria by more than 250%. Therefore, the majority of the dataset satisfied the criteria for stating that TRH F2 and TRH F3 contamination in fill is not likely to be an issue within the site at locations.
- The proposed development plan indicates that the sample location BH10 would be located beneath proposed hardstand / concrete slabs and therefore the ESL guidelines are not applicable to this location as there would be no direct access to soil.

- Any soil proposed to be removed offsite during development works are required to be classified in accordance with the relevant NSW EPA 2014 *Waste Classification Guidelines* criteria. Borehole BH10 can be managed during any offsite disposal of soils.

7.5.3 Ground Water

FES conducted a groundwater investigation of the site to determine any contamination present. The installation of three groundwater wells on site was carried out by FES on the 3rd and 14th of August 2022. Groundwater sampling was then undertaken on the 24th of August 2022.

Groundwater sampling was undertaken in accordance with the NSW DECC endorsed Groundwater Investigation Levels (GILs) given in the 1999 NEPM 'Schedule B(1) Guideline on the Investigation Levels for Soil and Groundwater' (Amendment 2013) and the water quality trigger levels given in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC & ARMCANZ, 2000), recently updated to ANZG (2018).

Samples were laboratory tested for concentrations of heavy metals, total recoverable hydrocarbons, BTEX, ploy-aromatic hydrocarbons and PFAS Specific compounds assessed as part of the laboratory analysis are mentioned below:

- **Heavy Metals:**
 - Arsenic (As)
 - Cadmium (Cd)
 - Chromium (Cr)
 - Copper (Cu)
 - Lead (Pb)
 - Mercury (Hg)
 - Nickel (Ni)
 - Zinc (Zn)
- **BTEX:**
 - benzene
 - toluene
 - ethyl benzene
 - M/P-Xylene
 - O-Xylene
 - Naphthanlene
 - Total-Xylene
- **Total Recoverable Hydrocarbons:**
 - F1 (C₆-C₁₀)²
 - F2 (>C₁₀-C₁₆)³
- **Poly Aromatic Hydrocarbons:**
 - Benzo(A)Pyrene
 - Anthracene
 - Phenanthrene
 - Fluoranthene
 - Naphthalene
- **PFAS:**
 - PFOA
 - PFOS

The laboratory analysis of groundwater is summarised in Figure 23. The results concluded that dissolved heavy metals of copper (Cu), mercury (Hg), nickel (Ni) and zinc (Zn) were detected at concentrations above the GILs for Fresh &/or Marine Water during the FES sampling rounds. All other concentrations (total recoverable hydrocarbons, BTEX, ploy-aromatic hydrocarbons and PFAS) were detected below the GILS &/or Groundwater HSLs.

FES's assessment evaluation of groundwater on site has concluded that there is low risk relation to the development. It is noted that the heavy metals of copper, mercury, nickel are considered to be related to offsite regional contaminant concentrations and/or background levels and are therefore of limited concern in relation to the GILs. Surface soil materials on site did not indicate a significant presence of elevated groundwater analytes and therefore are unlikely to be a source of the detected metal concentrations. The GW2 sample location is located near the above ground storage tank on site with all TRH, BTEX, PAH and VOC below the adopted guidelines. The site is not located in a catchment which contains the water quality of objectives of drinking water (i.e. beneficial use) and therefore drinking water guidelines were not applied.

Figure 23: Summary of Groundwater Assessment Laboratory Results

Sample Information		Heavy Metals								TRH		BTEX						PAH					PFAS		
SAMPLE ID	Date	ARSENIC	CADMIUM	CHROMIUM	COPPER	LEAD	MERCURY	NICKEL	ZINC	F1 (C ₆ -C ₁₀) ²	F2 (>C ₁₀ -C ₁₆) ³	BENZENE	TOLUENE	ETHYL BENZENE	M/P-XYLENE	O-XYLENE	NAPHTHALENE	TOTAL-XYLENE	BENZO(A)PYRENE	ANTHRACENE	PHENANTHRENE	FLUORANTHENE	NAPHTHALENE	PFOS	PFOA
FES DSI 2022																									
GW1	24.08.2022	7	0.2	<1	1	<1	2.6	43	78	<10	<50	<1	<1	<1	<2	<1	<1	<3	<0.1	<0.1	<0.1	<0.1	<0.2	-	-
GW2	24.08.2022	<1	<0.1	2	4	<1	0.3	6	23	<10	<50	<1	<1	<1	<2	<1	<1	<3	<0.1	<0.1	<0.1	<0.1	<0.2	-	-
GW3	24.08.2022	<1	<0.1	<1	4	<1	<0.05	19	50	<10	<50	<1	<1	<1	<2	<1	<1	<3	<0.1	<0.1	<0.1	<0.1	<0.2	-	-
GWD1	24.08.2022	6	0.2	<1	1	<1	2.5	42	75	<10	<50	<1	<1	<1	<2	<1	<1	<3	<0.1	<0.1	<0.1	<0.1	<0.2	-	-
GWSS1	24.08.2022	7	0.1	1	2	<1	0.1	41	78	<50	<60	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1.5	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
Limit of Resolution (LOR)		1	0.1	1	1	1	0.05	1	1	10	50	1	1	1	2	1	1	2	0.1	0.1	0.1	0.1	0.2	10	50
GILs - NEPM (2013) - Groundwater Investigation Levels																									
Fresh Waters ²		24 / 13	0.20	1.00	1.40	3.40	0.06	11.00	8.00			950	-	-	200	350			-	-	-	-	16		
Fresh Waters - Low Reliability (Trigger Values) ³												180	80						0.1	0.01	0.6	1	-		
Marine Water ²		-	0.70	4.40	1.30	4.40	0.10	7.00	15.00			500	-	-	-	-			-	-	-	1	50		
Drinking Water ⁴		10.00	2.00	50.00	2000.00	10.00	1.00	20.00	-			1	800	300	600				0.01	-	-	-	-		
Groundwater HSLs - NEPM (2013) HSL D (CLAY)																									
2m to <4m										NL	NL	30,000	NL	NL	-	-	NL	NL							
4m to <8m										NL	NL	30,000	NL	NL	-	-	NL	NL							
Solubility Limit										9,000	3,000	59,000	61,000	3,900	-	-	170	21,000							
PFAS NEPM 2020																									
Fresh Waters - 95% Species protection																								0.13	220
Marine - Interim																								0.13	220

- Notes
- 1 All units are in ug/L
 - 2 Investigation Levels apply to typical slightly-moderately disturbed systems
 - 3 QSAR derived, statistical distribution method used, 95% trigger values applied as per ANZECC 2000
 - 4 Investigation levels are taken from the health values of the Australian Drinking Water Guidelines NHMRC 2011
 - NL Non Limiting

Source: FES Report (Appendix K)

7.5.3 Impact Assessment

The site is previously heavily disturbed and, once developed, 90% of the site is to be covered by hardstand or buildings. Therefore, there is very little exposed soil and the erosion hazard for the site is low. Erosion controls during construction are outlined in Appendix K, and will be addressed in a site-specific Erosion and Sediment Control Plan during the construction phase..

The proposal application does not require any activities that may result in the risk of exposing any acid sulfate soils. Therefore, there is little to no risk of environmental contamination due to site disturbance.

FES has concluded that the site is suitable for the proposed development, noting that any soils proposed to be removed offsite are required to be classified in accordance with the relevant NSW EPA 2014 Waste Classification Guideline criteria.

An unexpected finds protocol has also been suggested by FES and is included in Appendix L.

7.5.4 Summary and mitigation measures

Sediment and erosion controls may include:

- An Incident Emergency Spill Plan would be developed and incorporated into the site operational plan. The plan would include measures to avoid spillages of fuels, chemicals and fluids onto any surfaces or into any adjacent/nearby waterways and an emergency response plan. An emergency spill kit would be kept onsite at all times.
- The refuelling of plant and maintenance of machinery is to be undertaken in impervious areas or off-site.
- Machinery would be checked and maintained regularly to ensure there is no oil, fuel or other liquids leaking from the machinery.
- A site-specific Erosion and Sediment Control Plan would be implemented during the construction phase.
- Soils proposed to be removed offsite are required to be classified in accordance with the relevant NSW EPA 2014 Waste Classification Guideline criteria and taken to a facility that is licensed to receive that type of material.

7.6 Traffic, Access and Parking

7.6.1 SEARs Requirements

The SEARs issued for this proposal identified “Traffic and Transport” as a key issue requiring that the EIS includes the following:

- details of road transport routes and access to the site road traffic predictions for the development during construction and operation’
- swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site;
- an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development; and
- details of the proposed site access and the parking provisions associated with the proposed development including compliance with the requirements of the relevant Australian carparking standards.

7.6.2 Background

A traffic impact assessment (TIA) was prepared by EB Traffic Solutions (EBTS) to assess the traffic and parking implications of the proposed development with consideration of:

- the existing conditions and a description of the proposal;
- an assessment of the development's car parking requirements;
- adequacy of the on-site car parking supply to accommodate the development's car parking requirements stipulated in the Cumberland Development Control Plan (2021);
- the ability for an articulated vehicle to safely enter/exit the on-site loading bays and be able to exit from the site in a forward manner; and
- an assessment of the traffic anticipated to be generated by the proposal and the traffic impact of the proposal.

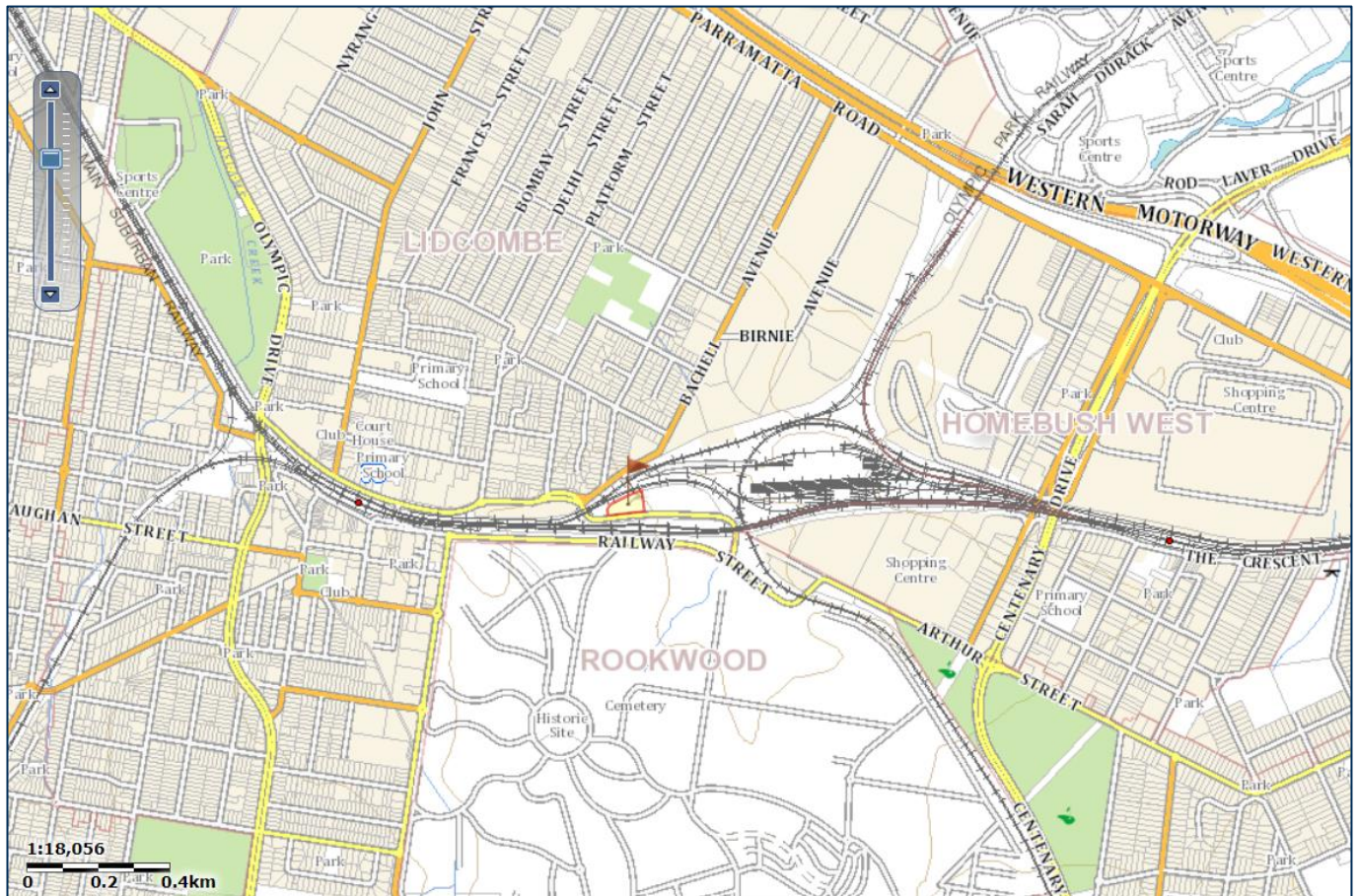
The TIA is included as Appendix M.

7.6.3 Existing Environment

The proposed FOGO transfer station is located on Church St, in the suburb of Lidcombe 2141 of Western Sydney City. Church street is occupied by residential, commercial, and industrial premises and borders a rail corridor to its south. Church street is a regional road that connects directly to major roadways, the A6 - Olympic Dr to the east, and to A3 - Centenary Dr to the east via Railway St and then Arthur St. Both the A6 and A3 connect to the A22 - Hume Highway to the south, and the M4 – Western Motorway to the north. Church Street contains an undivided cross section with a traffic lane in each direction. Unrestricted parking restrictions apply along both sides of the road in the vicinity of the site. The surrounding road network is shown on Figure 24.

The site's proposed entry is accessed via an entrance driveway along the southern boundary to the west of the site which leads through the sites internal drive into the carpark and entryway into the facilities weighbridge where the intake of materials is received.

Figure 24: Surrounding road network



Source: Six Maps 2023

7.6.4 Public Transport

EBTS has conducted an assessment of the public transport servicing the site and has noted that there is an excellent level public transport that operates along church street adjacent to the site.

By train the Lidcombe railway station is located 900m west of the site.

A modal interchange is located adjacent to the railway station which accommodates the following six bus services:

- Bus 401 operates between Lidcombe railway station and Lidcombe Birnie Avenue (loop service);
- Bus 925 operates between East Hills and Lidcombe via Bankstown;
- Bus M92 operates between Sutherland and Parramatta;
- Bus route N50 operates between Penrith to City service;
- Bus N60 is a night bus service which operates between Fairfield and City Town Hall; and
- Bus N61 is a night bus service which operates between Carlingford and City Town Hall.

Bus stops are located on Church Street adjacent to Lidcombe railway station.

Reference to the bus timetable of the bus service indicate that the bus service operates at times during the weekday periods which coincide with the majority of the proposal's operating hours.

The existing public transport network is able to provide adequate public transport services to staff at the facility.

7.6.5 Impact Assessment

7.6.5.1 Impact to road network

ETBS has assessed the operational traffic impact of the proposed development with regard to the anticipated number of vehicle movements likely to be generated at the development access during the commuter peak periods.

Staff and visitor related vehicle trips generated by the development would correspond to a maximum of 4 staff and up to two visitors. The staff parking demands, at shift changeover times, would correspond to four entry movements and four exit movements. Visitors to the site would likely to be minimal and intermittent between 9am and 3pm. During the commuter peak hours, it is expected that there would be no staff or visitor movements.

The majority of truck movements generated by the site would have a maximum overall length of a 20m Articulated Vehicle (AV). As such, ETBS conducted an analysis of daily truck movements at the site based on the site's capacity to process 80,000 tonnes per annum, operating approximately 5.5 days per week (which is approximately 286 days per year) and therefore receiving on average 280 tonnes per day.

On the basis of the above, material receipt would result in approximately 52 trucks per day which is summarised in further detail as follows (Table 29):

Table 29: Material receipt truck movements

Average truck payload	Trucks Per Day	Truck Movements (in/out)	Typical delivery hours	equivalent trucks per hour
6 tonnes	47	94	8-12	4-6

The site is to be designed as such to allow for up to 3 typical waste collection vehicles to queue within the boundaries of the site at any given time. In total, 5 waste collection trucks may be present onsite at any one time, including:

- 1 x truck depositing waste in the central material storage area of the proposed shed;
- 1 x truck in the internal shed loading/waiting bay;
- 1 x truck at the incoming weighbridge; and
- 2 x trucks outside of the proposed shed, inside the site entrance.

Offtake of material from the site would see approximately 13 AV sized trucks per day at the site, as summarised in Table 30:

Table 30: Material offtake truck movements

Average truck payload	Trucks Per Day	Truck Movements (in/out)	Typical delivery hours	equivalent trucks per hour
24 tonnes	12	26	16	<1

Material offtake would be scheduled outside of peak material input times to avoid additional traffic at the site (early in the morning or late in the afternoon/at night). It is not expected that more than one material offtake vehicle would be present at the site at any one time.

The site has the capacity for up to three AV trucks to be present onsite at any time (assuming no collection vehicles are also onsite):

- 1 x truck in the internal shed loading/waiting bay;
- 1 x truck at the incoming weighbridge; and
- 1 x truck outside of the proposed shed, inside the site entrance.

In total, the proposed development would result in approximately:

- 59 truck visits per day (or 118 truck movements); or
- approximately 8 truck entry and 8 truck exit movements during the commuter peak hours.

59 trucks accessing the site would not affect the safety and function of the surrounding road network and there would be no need for road upgrades

7.6.5.2 Transport Routes

Personal vehicle traffic is likely to arrive from either the east or west, however this number would be minimal given the low number of staff likely to frequent the site at any-one time.

Heavy vehicle traffic associated with the proposed use of the facility (traffic volume described in Section 7.6.5.1) would make up the predominant traffic to and from the site. The majority of trucks are expected to arrive from the east and then upon exit, all trucks would be directed to turn left out of the site. Signage would be located at the exit access stating 'left turn only'. On this basis, heavy vehicle traffic will generally frequent intersections between Church St, Railway St, Arthur St and Centenary Dr (through to other major arterial roads or motorways).

On the basis of the above forecast traffic movements, EBTS have concluded that the number of generated traffic movements are minimal and well within the road carrying capacity of Church Street or connected roadways, and would not represent an adverse impact upon the operation of the surrounding road network.

7.6.5.3 Parking

The car parking requirements for the proposal are set out in the Cumberland Development Control Plan (2021), specifically in Part G3, Section 3, Table 1. Further, reference to the Cumberland LEP (2021), indicates that the proposed development is considered to correspond to a 'waste transfer station which is defined as:

'a building or place used for the collection and transfer of waste material or resources, including the receipt, sorting, compacting, temporary storage and distribution of waste or resources and the loading or unloading of waste or resources onto or from road or rail transport.'

Reference to the Cumberland Development Plan (2021), specifically Chapter 12, indicates that a waste transfer station is not a development type listed in the Cumberland Development Control Plan (2021), specifically in Part G3, Section 3, Table 1. Further, the Cumberland DCP (2021), states amongst other things that for a land use not defined in Section 3, Table 1, the car parking requirements can be determined by referencing the TANSW Guide to Traffic Generating Developments or alternatively, a car parking survey of a comparable facility, subject to Council approval. Given that the proposed land use is not defined in the TANSW Guide to Traffic Generating Developments, EBTS sourced case study data to derive the anticipated car parking demands for the proposed development.

There would be a maximum of up to four staff at the facility at any one time. Therefore, the total peak staff parking demand would correspond to eight vehicles (at shift changeover times) and say two visitor spaces, which can be comfortably accommodated within the on-site parking supply of 19 spaces. The applicant has further advised that visitors to the facility would be minimal.

Further, reference to the Building Code of Australia indicates that, for a class 8 building, there is a requirement to provide '1 disabled car space for every 100 car parking spaces or part thereof', resulting in the requirement to provide one disabled parking space, which is proposed to be provided.

7.6.5.4 Loading bay requirements

The Cumberland Development Control Plan (2021), specifically Part G3, Section 4.6 indicates the following loading requirements for the proposed development:

Industrial/warehouse uses 1 space/800sqm GFA up to 8,000sqm GFA plus, 1 space/1,000sqm thereafter.

Based upon a warehouse (stockpile) area of 692 sqm, the proposed development is required to provide up to one loading bay, which is satisfied.

It is noted that while a formal loading zone area has been provided for an articulated vehicle, informal loading zone areas exist for 12.5m HRVs as they circulate around the stockpile area to then deposit their material at varying locations depending upon the area available to reverse into or adjacent to the stockpile area. A front-end loader would then reposition the deposited material centrally within the stockpile area.

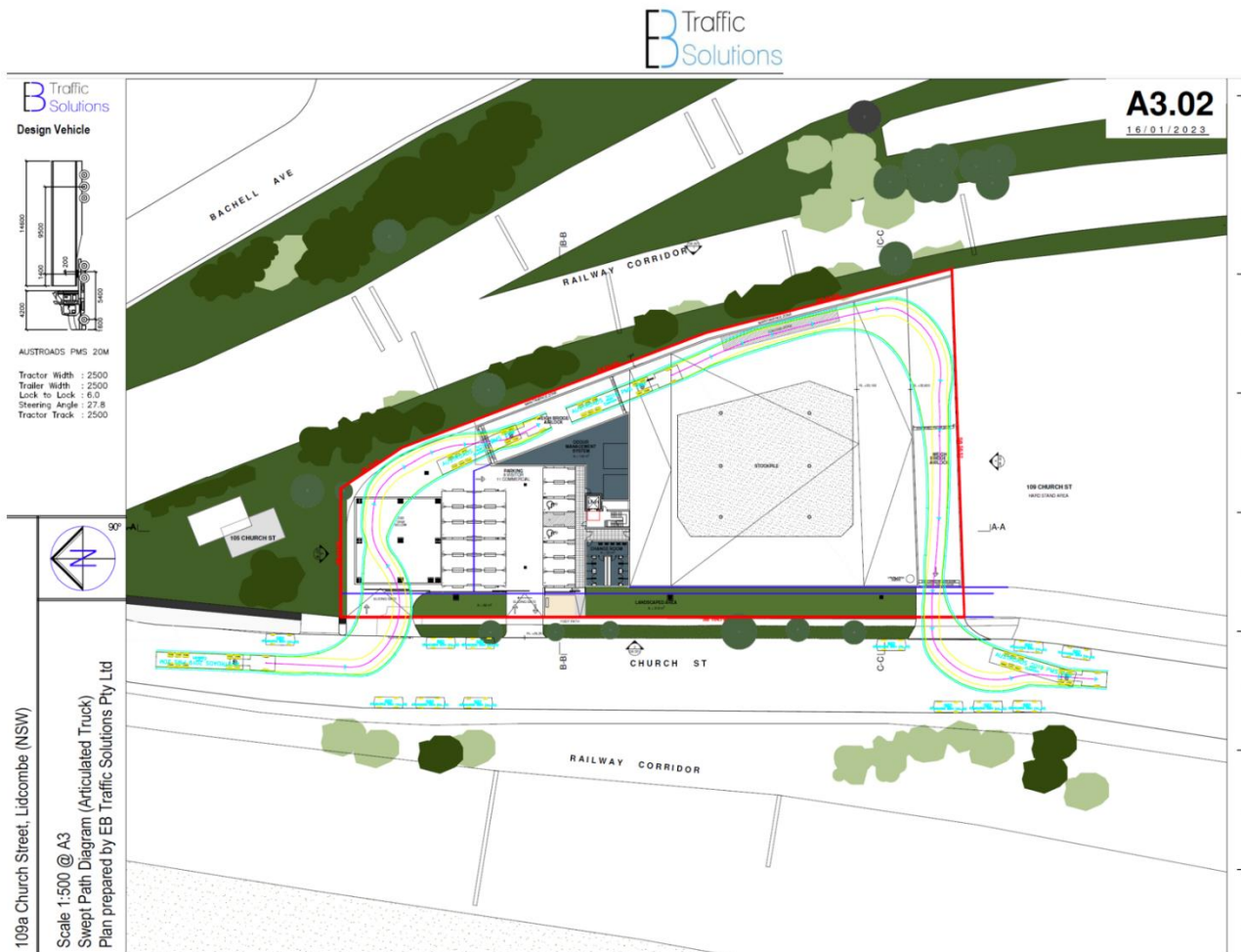
On the basis of the above, the on-site loading bay facilities accord with the requirements specified in Part G3, Section 4.6 of the Cumberland Development Control Plan (2021).

7.6.5.5 Access

For trucks entering and exiting the site, the width of the entry access is proposed to be provided at 11 m and the width of the exit access at 6.6 m which accords with AS 2890.2 (2018).

EBTS has assessed the ability for the largest vehicles expected to visit the site. The being a 12.5 m HRV and a 20 m AV to turn into the site access, manoeuvre on site to then exit from the stockpile area and site in a forward manner using a swept path analysis as seen in Figure 25.

Figure 25: Swept path analysis



Source: EBTS Traffic Report – Attachment B Swept Path Analysis 12.5m HRC and 20 M AV)

EBTS's analysis concludes that a 12.5 m HRV and a 20 m Articulated Vehicle can safely enter and exit the site's stockpile area to then depart from the site in a forward manner.

There is a minimum height clearance of 7.099 m above the weighbridges and warehouse (stockpile) areas on the site. Reference to Australian Standard AS 2890.2 (2018), indicates a required headroom clearance of 4.5 m to accommodate a 20 m AV (as well as a 12.5 m heavy rigid truck), which has been satisfied.

7.6.6 Summary and mitigation measures

The Traffic Impact Report concluded that the number of generated traffic movements are minimal and well within the road carrying capacity of the site access road and would not represent an adverse impact upon the operation of the surrounding road network.

Based on the findings of the EBTS Report it is concluded that:

- The on-site parking provision of 19 spaces is in excess of the peak car parking demands anticipated to be generated by the proposed development; and
- The number of generated traffic movements are minimal and well within the road carrying capacity of Church Street would not represent an adverse impact upon the operation of the surrounding road network.

The recommendations from the EBTS report include:

- left turn only' signage be located at the exit access.

7.7 Amenity and Security

7.7.1 SEARs Requirements

The SEARs issued for this proposal identified “visual amenity” as a key issue requiring that the EIS includes an impact assessment at private receptors and public vantage points.

7.7.2 Background

The site is situated within an industrial block that is buffered on each side by the surrounding railway corridor, roadways and tree-line vegetation. The closest sensitive residential receptors are located on Bachell Avenue.

7.7.3 Impact Assessment

The proposed transfer station facility would feature airlocked entry and exits, a state-of-the-art odour control system and process up to 80,000 tonnes of FOGO per annum.

All materials received are to be offloaded and removed from the site would be loaded from within the warehouse facility. and operations are to be located inside the warehouse facility, which is not accessible by the public.

The potential impacts to visual amenity are through windblown litter, and visual impacts.

Windblown litter

There is little to no risk for potential windblow litter from site during the operational phase of the proposal. All operational activities including the receipt and offtake of organic waste would occur inside the warehouse space under airlocked entry and exit. Received organic waste will only be stored inside the warehouse's designated stockpile space.

Visual amenity

The site is expected to have no impact to the visual amenity of the surrounding area. Located in an industrial block, the lot is surrounded by railway corridor, roadways and bordered by vegetation and tree line that act to screen any view of the site from nearby residential areas. The size and bulk of the proposed development is in keeping with the industrial nature of the block within which it exists. Vegetation plantings are proposed as part of the development with a landscaped garden along the southern entrance boundary to the site and tree line vegetation that would run along the northern boundary east to west. Visual treatment of the building, including architectural design, is sensitive to the surrounding neighbourhood and the view from the street.

The nearest sensitive receiver is 70m to the north-west and visually screened by the pre-existing railway corridor and roadway.

Security

The site is secured with lockable double gates at the entrance and exit. The exterior of the site is well lit and is to be monitored by a CCTV surveillance camera system. Visitors and staff pass via a weighbridge and gatehouse to enter the transfer facility warehouse. Signage gives hazard information, speed limits and hours of operation. Fencing protects the site from intrusion.

7.7.4 Summary and mitigation measures

Mitigation measures would include:

- Site clean-up during daily operations to control windblown litter.
- Staff would monitor the site for unauthorised persons in staff-only areas.

7.8 Indigenous Heritage

7.8.1 SEARs Requirements

The SEARs issued for this proposal identified “heritage” as a key issue requiring that the EIS includes an assessment of Aboriginal cultural heritage.

7.8.2 Background

The site is situated with the Gandangara Local Aboriginal Land Council (LALC) area and is a part of the greater region of the Darug people. The site has been extensively disturbed prior to this proposal.

Due to the highly urbanised, disturbed and developed nature of the locality, it is unlikely that items or places of indigenous heritage are to be discovered in this area. A search of the area around the site revealed no locations of this nature within the vicinity of the site.

7.8.3 Impact Assessment

This assessment follows the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, to examine the presence of culturally sensitive objects/ areas of the site.

Items of Indigenous heritage significance are listed on statutory registers and are afforded varying levels of protection. A search of the NSW AHIMS register was undertaken on 3 November 2022, allowing for a 50m buffer from the site boundaries (see Appendix N for reported results). No recorded items of Aboriginal heritage were identified within the vicinity of the site.

No items of Indigenous heritage significance have previously been identified within the vicinity of the site. Earthworks on the site would include the levelling of ground for a construction of the warehouse facility and installation of a below ground OSD tank near the main site entrance. The site is already heavily disturbed and therefore, items of Indigenous heritage significance are unlikely to be uncovered as a result of works to the site.

It is considered that there is a very low likelihood of relics or items of Indigenous heritage significance existing on the site. Due to this low likelihood scenario, no further investigation, or Aboriginal Heritage Impact Permit (AHIP) would be required for the proposal.

7.8.4 Summary and mitigation measures

Following the Due Diligence Code Practice and a search of the NSW AHIMS register, no sites or items of aboriginal significance were found to exist onsite.

- Earthworks would be confined to the areas indicated in the design diagram; and
- Should an item of Aboriginal significance or suspected significance be discovered on the site, all work in the vicinity of the area would cease and the site management would be contacted immediately to engage in the appropriate course of action which may include contacting a heritage professional, notifying the NSW Department of Environment and Heritage and the LALC.

7.9 Non-indigenous Heritage

7.9.1 SEARs Requirements

The SEARs issued for this proposal identified “heritage” as a key issue requiring that the EIS includes an assessment of non-Aboriginal cultural heritage.

7.9.2 Background

This section aims to address any potential impacts on non-indigenous heritage features that could arise as a result of construction and operation of this proposal. A review of applicable State and Federal heritage registers was undertaken to identify any non-indigenous heritage items within the vicinity of the site. Heritage items or sites can include buildings or infrastructure, burial sites (graves), archaeological digs and geological sites².

Items of non-indigenous heritage significance are listed in statutory registers, providing them with varying levels of protection. Non-indigenous heritage items are listed at a National, State or Local level on the following registers, applicable to the Site:

- National Heritage Register;
- NSW Register; and
- Cumberland Local Environmental Plan 2022.

An assessment of construction and operation impacts on non-indigenous heritage items has been undertaken to ascertain the potential for the proposal to have a negative impact on any non-indigenous heritage within the area.

The site and the surrounding landing is made up of a mixture of industrial, business and residential areas (see Section 2.3.4 and 2.4 for details on the land and zoning of the area).

A search of the NSW State Heritage Register for the 109A Church St site was conducted on 3 November 2022. The search identified 3 areas of heritage significance in the vicinity of the site. Most notably Rookwood Cemetery and Necropolis (approximately 95m South) as shown in

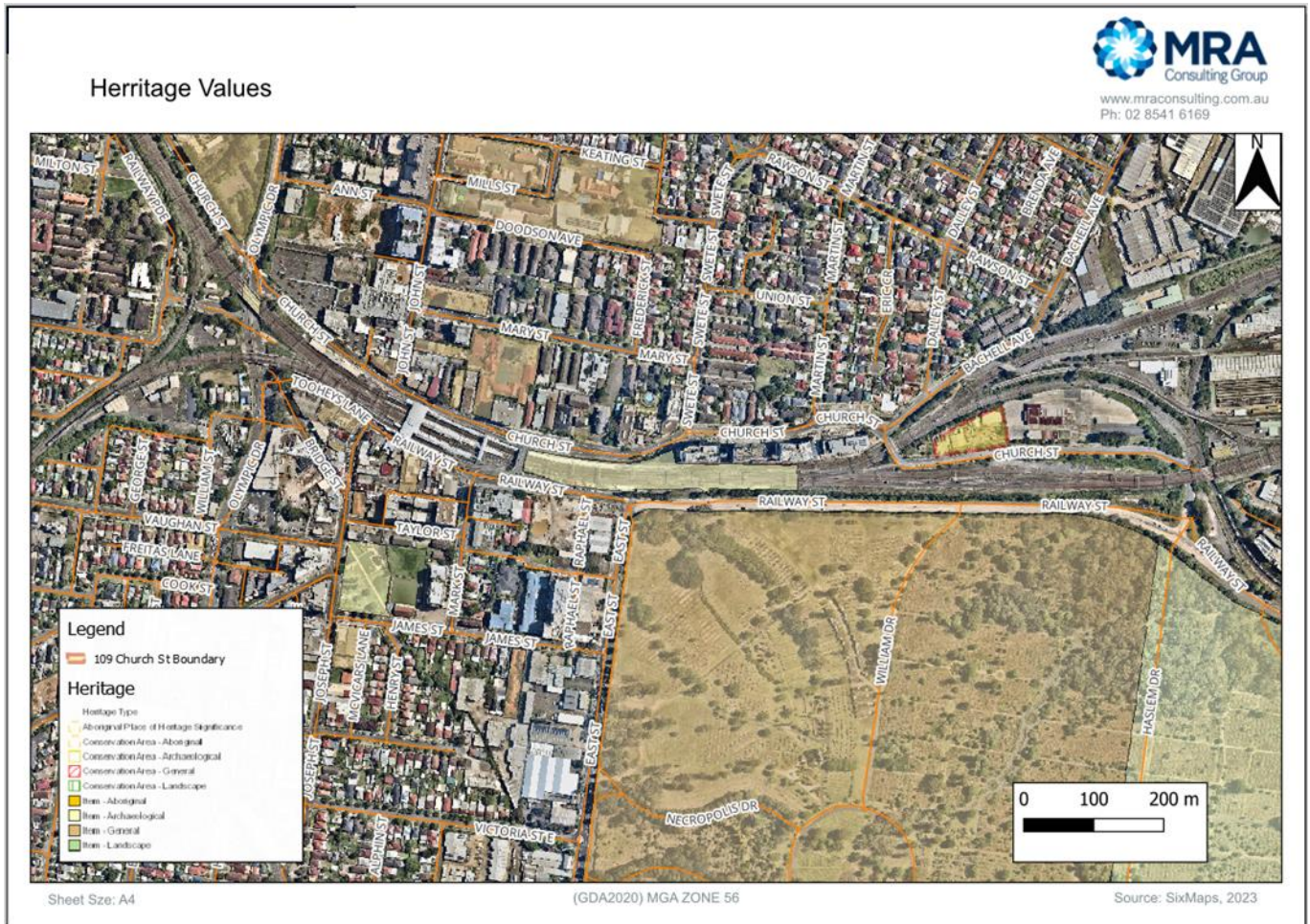
Figure 26. The cemetery is Australia’s largest 19th century cemetery and regarded as one of the largest burial grounds in the world. It is of heritage significance due to its unique architecture, design, and contribution to Sydney’s cultural, social, and religious history. The 280ha site acts as an important haven for local birdlife and other native fauna. It also harbours several examples of rare native and non-native species, including several endangered and threatened species.

A search of the National Heritage Register for 109A Church St was conducted on 3 November 2022 and did not retrieve any results.

A search of the Cumberland LEP on 3 November 2020 identified no conservation areas near to the site.

² Australian Government Geoscience Australia, Cultural Heritage Legislation (Indigenous and non-Indigenous) Guidelines

Figure 26: Heritage values nearby to the 109A Church Street site



Source: NSW State Heritage Inventory, 2022.

7.9.3 Impact Assessment

As the site is already heavily disturbed, items of non-indigenous heritage significance are unlikely to be uncovered during construction or operational phases of this proposal.

There is also little to no risk of any adverse impact to the Rookwood Cemetery, during both the construction and operational phases of this proposal. There is no direct access from the site to Rookwood Cemetery. The area between the site and the cemetery is heavily buffered via the pre-existing railway line, roadways (both Church Street and Railway Street) and vegetation, in the form of a tree line that runs along the railway boundary on Railway Street.

If any items of non-indigenous significance are uncovered, mitigation measures would be implemented as per the mitigation measures below.

7.9.4 Summary and mitigation measures

Limited mitigation measures are proposed in relation to non-indigenous heritage due to the previous disturbance of the site.

- Construction operations would occur as a part of the proposal in the form of construction of a warehouse, office, odour control system and carparking area;

- Minimal ground disturbance and excavation would occur as a part of the proposal, the site is already considerably altered from its original state; and
- No non-indigenous heritage items have been previously identified on the Site.

In the unlikely event of an unexpected find of historical heritage objects, archaeological relicts or sites during excavation operations, appropriate management procedures would be applied as follows:

- Work would cease immediately in the vicinity of the find and site management would be notified immediately;
- A qualified archaeologist would be engaged to assess the find;
- The Department of Environment and Heritage would be advised as considered necessary and any necessary approvals would be obtained prior to continuing work; and
- Where known objects or sites would be impacted, all recovery or management of impacts would be in accordance with a Statement of Heritage Impact.

7.10 Biodiversity

7.10.1 SEARs Requirements

The SEARs issued for this proposal identified “biodiversity” as a key issue requiring that the EIS includes the following:

- description of any potential vegetation clearing needed to undertake the proposal and any impacts on flora and fauna.

7.10.2 Background

The suburb of Lidcombe is a highly urbanised and industrialised environment situated within the Cumberland LGA. According to the Cumberland Biodiversity Strategy 2019, only 2.6% of native vegetation remains in the area. Only a few patches of bushland consisting of several small pockets of high biological diversity remain in the LGA.

The site location is highly disturbed, featuring only weedy regrowth as seen in Figure 27. The vegetated areas within the site are highly modified and are no longer indicative of the native vegetation that existed prior to the site’s development. Currently the site is utilised as a parking and storage space for trucks and construction machinery. On Church Street, at the street-side entrance to the site, low productivity grass plantings and several native trees exist along the entrance boundary, adjacent to the site and along the footpath as seen in Figure 27.

Figure 27: Vegetation present on Site



Figure 28: Vegetation present along Church Street

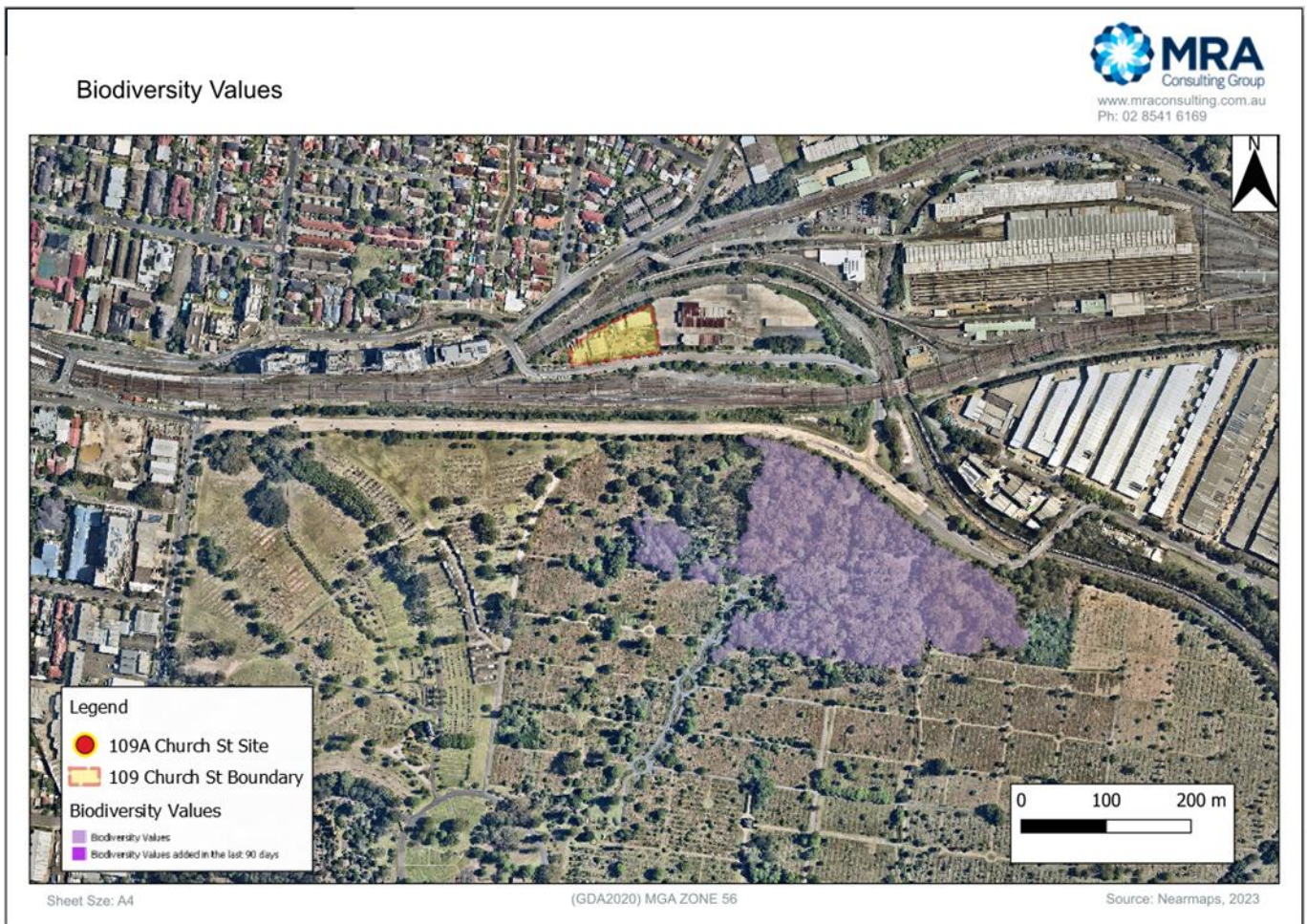


Source: Photography taken during site visit, 2021.

The surrounding area is zoned as SP2 - Railway Infrastructure which immediately surrounds the site on all sides, SP1 - Special Activities (comprising the Rockwood Cemetery and Necropolis to the South), RE3 - Medium Density Residential (North-West), RE4 - High Density Residential (North-West) and B5 - Business Development (North-East).

An search of biodiversity values in the vicinity of the site was completed on 3 November 2022 using the NSW Biodiversity Values Map and Threshold Tool, the results of which are show in Figure 29. A small area approximately 200m to south was identified as an area of biodiversity value, located within the Rockwood Cemetery.

Figure 29: Biodiversity Values within the vicinity of the 109A Church Street site

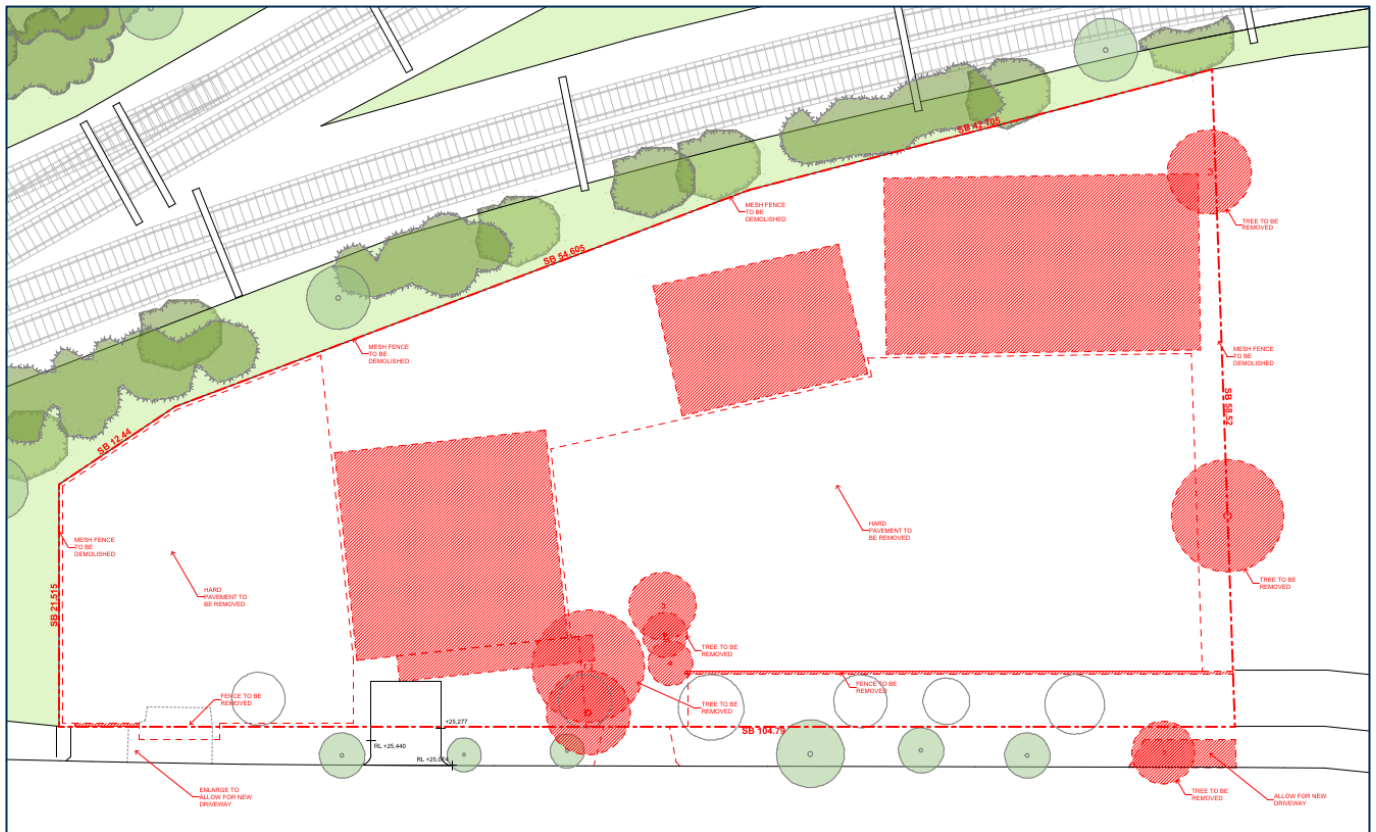


Source: NSW Biodiversity Values and Thresholds Tool, 2023.

7.10.3 Impact assessment

As part of this development eight trees would need to be removed from the site prior to the commencement of construction activities. The locations of trees to be removed are presented as part of the demolition plan in Appendix F and Figure 30, below.

Figure 30: Trees to be removed

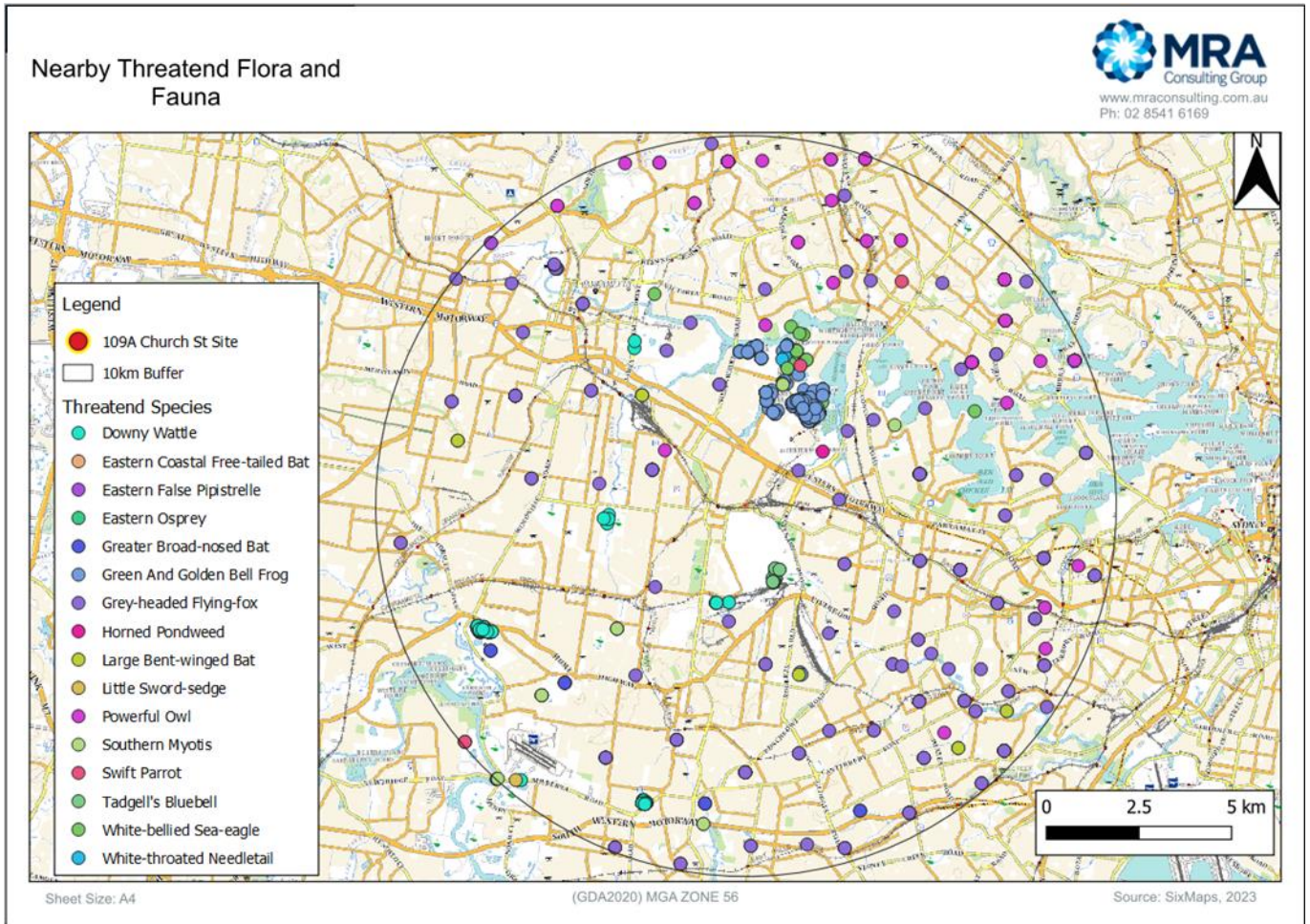


To assess the impact of the Proposal on local flora and fauna, a targeted search within a 10km x 10km extent from the site was conducted using the BioNet Atlas of NSW Wildlife Species Sighting dataset. The search criteria included all valid records, from the past five years of entities threatened in NSW (listed under the Threatened Species Conservation Act 1995) and entities threatened nationally (listed under the Environment Protection and Biodiversity Conservation Act 1999). The results of this search are presented in Table 31. Threatened species sightings in relation to the proposal site are visually mapped in Figure 31.

Habitat provision

As the site is highly disturbed, there is no potential to provide habitat for the life-cycle needs of fauna species. Although eight trees would be removed, there is much more significant biodiversity value in the adjacent cemetery to provide for foraging and shelter. The existing native trees located directly outside of the site boundaries would not be impacted and, together with new plantings, provide connectivity to the surrounding areas.

Figure 31: Nearby Fauna and Flora Sightings



Source: NSW BioNet Atlas, 2023.

Table 31: List of threatened species in the selected area within the last 5 years

Kingdom	Class	Scientific Name	Common Name	NSW Status	Sightings
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered Protected	671
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Protected	5
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable Protected	21
Animalia	Aves	Sternula albifrons	Little Tern	Vulnerable Protected	1

Kingdom	Class	Scientific Name	Common Name	NSW Status	Sightings
Animalia	Aves	<i>Pandion cristatus</i>	Eastern Osprey	Vulnerable Protected Sensitivity Class 3	1
Animalia	Aves	<i>Lathamus discolor</i>	Swift Parrot	Endangered Protected	1
Animalia	Aves	<i>Ninox strenua</i>	Powerful Owl	Vulnerable Protected Sensitivity Class 3	3
Animalia	Mammalia	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vulnerable Protected	44
Animalia	Mammalia	<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	Vulnerable Protected	1
Animalia	Mammalia	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	Vulnerable Protected	1
Animalia	Mammalia	<i>Myotis macropus</i>	Southern Myotis	Vulnerable Protected	10
Animalia	Mammalia	<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	Vulnerable Protected	1
Animalia	Mammalia	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	Vulnerable Protected	5
Plantae	Flora	<i>Wahlenbergia multicaulis</i>	Tadgell's Bluebell	Endangered Population	15
Plantae	Flora	<i>Wilsonia backhousei</i>	Narrow-leafed Wilsonia	Vulnerable	24
Plantae	Flora	<i>Acacia pubescens</i>	Downy Wattle	Vulnerable	222
Plantae	Flora	<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	Endangered	1

Kingdom	Class	Scientific Name	Common Name	NSW Status	Sightings
Plantae	Flora	Zannichellia palustris	-	Vulnerable	1

Note: Data taken from between January 2019 and February 2023

It is noted that no sightings of flora or fauna have been recorded on the Proposal site. The closest threatened species sighting recorded in the NSW BioAtlas to the site was a Grey-headed Flying-fox approximately 1.7km northeast.

Endangered Ecological Communities (EECs)

The site has been highly disturbed. No intact EECs as listed in Schedule 1 of the *Biodiversity Conservation Act 2016* exist on the site and none would be affected by the Proposal.

The Rockwood Cemetery is regarded as an unusual ecotone where a pocket of Sydney sandstone associated vegetation occurs in the midst of predominantly Wianamatta shale associated vegetation. It is home to Iron Bark Forest, a critically endangered ecological community as according to the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. There is no immediate risk to this ecological community under the current proposal.

7.10.4 Summary and mitigation measures

No ecological surveys on site are required to determine the existence of any fauna or flora onsite. As the site has recently utilized as an industrial space and is highly disturbed, there is minimal potential to disrupt the surrounding native flora and fauna in the vicinity of the site. All proposed operational activities would be undertaken inside the warehouse facility of the transfer station. The railway corridor and roadways that immediately surround the site on all sides, buffer the site from any effective potential for environmental disturbance to the surrounding area. This assessment concludes as there is no connectivity between the Rockwood Cemetery and the proposed development there is little to no risk of environmental disturbance to any flora or fauna in the near vicinity.

During construction works, the following mitigation measures would be implemented:

- If native fauna are encountered work would be ceased on site; and
- The local authority would be contacted for immediate assessment (e.g. WIRES).

During operation of the site, the following mitigation measures would be implemented:

- All operational activities would occur indoors.

7.11 Hazards and Risks

7.11.1 SEARs Requirements

The SEARs issued for this proposal identified the “hazards and risk” as a key issue requiring that the EIS includes the following:

- Under the *Hazards and Resilience SEPP (2021)*, a preliminary risk screening completed in accordance with the current circulars or guidelines published by the Department of Planning, being the guideline *Applying SEPP 33 (DoP, 2011)*. A preliminary risk screening under *Applying SEPP 33 (DoP, 2011)* requires 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 *Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011)* and *Multi-Level Risk Assessment (DoP, 2011)*

- Consideration of potential impacts on rail infrastructure in accordance with the *Transport and Infrastructure SEPP (2021)*.

The SEARs also identifies 'fire and incident management' as key issues that require the EIS to include the follow:

- 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 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 *Fire Safety in Waste Facilities dated 27 February 2020*.

7.11.2 Background

Key hazards and risks for the proposal are associated with the operation of the facility and include:

- Management of hazardous chemicals on site chemicals associated with the scrubber units;
- Diesel fuel for site front end loader vehicle;
- Fire at the transfer site;
- Vehicle movements within the site;
- Potential damage to the equipment on site or damage to the building;
- Management of storage pile face; and
- Medical emergencies.

In accordance with the SEARs the Hazard and Risk assessment includes completion of a screening test in accordance with the *Hazards and Resilience SEPP (2021)* to determine whether a Preliminary Hazard Analysis (PHA) is required. This involves:

- Identification of dangerous goods involved in the Proposal, the quantities of these goods and the distance of the storage location relative to the Site boundary; and
- Determination of whether the Proposal would emit a polluting discharge, which would cause a significant level of offence, and hence require a licence.

7.11.3 Impact Assessment

7.11.3.1 Risk

A preliminary risk assessment is provided in Section 6, which assesses the potential consequences of the development without any mitigation of the effects. Section 10 provides an updated risk analysis bringing into consideration mitigation measures proposed in this EIS.

In accordance with *Applying SEPP 33*, a qualitative assessment takes into consideration that:

- *The materials are relatively non-hazardous* - Organics are not hazardous. Small quantities of flammable liquids will be stored onsite, and will be managed appropriately;

- *There are no major worst-case consequences* – Containment of materials and appropriate handling and response will avoid negative impacts;
- *The technical and management safeguards are self-evident and readily implemented* - An Operational Environmental Management Plan (OEMP) and Pollution Incident Response Management Plan (PIRMP) will be implemented with standard and site-specific measures.
- *Where the surrounding land uses are relatively non-sensitive* - Surrounding uses are industrial and previously developed.

The overall risk is therefore low and hazards can be effectively managed.

7.11.3.2 Potentially Hazardous Development

The proposed odour management system proposed for use at the site would be designed to accommodate the addition of chemicals to dosing for further mitigation of odour. Chemicals may include the likes of sodium hypochlorite (bleach) and sodium hydroxide (caustic) which are Class 8 corrosive substances. These chemicals can be used (only if required) to support the operation of the odour control system scrubbers, while front end-loaders and trucks would require diesel fuel for operation.

As described in the *Hazards and Resilience SEPP (2021)* the first stage of determining the SEPP’s procedural requirements, and in particular to determine if a Preliminary Hazards Analysis (PHA) is required, is to undertake the screening tests, such as dangerous goods quantity/ distance thresholds. Hazardous materials are substances falling within the classification of the *Australian Code for Transportation of Dangerous Goods by Road and Rail (Dangerous Goods Code)*.

Industries or projects determined to be hazardous or potentially hazardous require the preparation of a PHA in accordance with Part 3.11 of the *Hazards and Resilience SEPP (2021)*. Table 32 shows the screening thresholds established in Department of Planning guidelines, *Applying SEPP 33 (DoP 2011)* and the quantity of dangerous goods that would be stored on-site.

Table 32: Screening thresholds for dangerous goods

Chemical/material	Estimated maximum quantity to be stored on-site	Dangerous Goods Class	Screening threshold/potentially hazardous region
Diesel fuel	400 Litres	C1: Flammable liquids stored separately from other fire risk dangerous goods	100,000kg/L
Sodium Hypochlorite	1,000 Litre IBC	8 PGI: Corrosive substances	50,000kg/L
Sodium Hydroxide (caustic)	1,000 Litre IBC		

The quantities of fuel proposed to be stored on-site for machinery use are well below the threshold quantities of *Applying SEPP 33 (DoP, 2011)*. Hazardous substances would be stored separately and in approved containers and bunds. A self-bunded diesel tank compliant with *Australian Standard 1940:2004: The storage and handling of flammable and combustible liquids* would be used for the storage of the diesel. The proposed development therefore complies with the requirements of the *Hazards and Resilience SEPP (2021)*.

7.11.3.3 Potentially Offensive Development

A potentially offensive industry is defined as:

a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.

In assessing offence, Section 5.1 of the *Applying SEPP 33* Guidelines indicates that information should be provided regarding the:

...quantity and nature of any discharges, and the significance of the offence likely to be caused by the development, having regard to the nature of the surrounding land use and the proposed controls. The need for any licences from the DECCW or other public authority should also be ascertained.

An assessment of offence is provided in Table 33 in accordance with *Applying SEPP 33*.

Table 33: Offensive development assessment

Potential Discharge	Surrounding land use	Controls	Impact on locality
Noise	The distance from sensitive receivers and the proximity of road infrastructure would mitigate impacts due to noise.	None required. Noise quality modelling indicates that impacts would be minimal.	Nil.
Odour	The site is proximate to sensitive receptors	Odour emissions would be controlled by an odour Scrubber.	Nil.
Stormwater	The closest waterway is located approximately 2km to the south east of the site.	All receivals and storage will occur within the warehouse. Appropriate management of materials will mitigate potential impacts to the environment.	Nil.
Licensing	N/A	The activity will be subject to an Environment Protection Licence and will be required to conform to the licence conditions.	Nil

Based on this assessment, the facility would not have offensive characteristics and would not be classified as a potentially offensive industry.

7.11.3.4 Fire

The operational risk of fire on site is low but not non-existent. Fire hazards on site are identified as:

- The waste stockpile; and
- Fuel and chemicals stored on site.

The surrounding area is almost entirely buffered by roadways and railway corridor. Therefore, the fuel load present in adjacent properties is low.

Fire protection is achieved through the following measures:

- The area surrounding the transfer station location and the neighbouring properties are sparsely vegetated and are buffered by railway corridor and roadways which provides a fire break for 80 metres;
- Access to the warehouse is capable of accommodating fire trucks;
- Water trucks are able to be utilised for fire suppression; and
- Emergency training would be provided to on site staff.

7.11.3.5 Site Management Plans

The Environmental Management Plan (EMP) is a key document that outlines objectives, training and procedures for site management. The key hazards outlined above would be addressed in the EMP.

An Emergency Response Management Plan, within the Site Environmental Management Plan would include a fire response procedure. This is detailed in Appendix G.

A Pollution Incident Response Management Plan is required for licensed sites to identify, assess, and mitigate the potential pollution incidents. A PIRMP would be prepared as a requirement prior to the issuing of an EPL.

7.11.4 Summary and mitigation measures

Fire and hazard risk can be mitigated by appropriate site management.

- Procedures to prevent pollution and manage hazards and risks would be documented in an Environmental Management Plan.
- A Pollution Incident Response Management Plan would be developed in accordance with AS 3745 - 2010 *Planning for emergencies in facilities*.

7.12 Socio-economic

7.12.1 7.10.1 SEARs Requirements

No specific SEARs requirements were issued by the DPE as it relates to socio-economic impact of the proposed development. This section aims to highlight the potential implications of the site on the local area and the net positive impact it would have on society.

7.12.2 Background

An understanding of the social context of the proposed development ensures that proposal planning takes into account the surrounding social conditions and that it would integrate, both physically and socially, with

the surrounding area. This section presents an overview of the social context of the area and how it would be affected by the proposed site development.

The socio-economic impacts of construction and operation of the site have been assessed to evaluate key issues for the proposal:

- Net economic gains to the local community through the provision of jobs to Southwestern Sydney;
- Changes to local demographic and local economic impacts; and
- Regional economic impacts.

The estimated residential population of the Cumberland LGA was 235,439 in 2021 (ABS, 2021). The total workforce employed in the area in 2021 was estimated to be 86,030 (ABS, 2021).

7.12.3 Impact Assessment

It is considered that the addition of a FOGO transfer station would have a net positive effect on the socio-economic environment of the Cumberland LGA and the Western Sydney City District. The development would provide opportunities for additional employment of up to 4 full-time operational staff members to work at the transfer station facility.

Indirectly, the operation would also provide continued local employment for locally sourced support services, such as fuel and equipment suppliers, specialist contractors, maintenance personnel, business services and retail trades.

Socio-economic benefits derived from organics recycling activities consequentially provide an advantage to society and the region as a whole, through:

- Recovery of valuable resources and generation of material for the greater productive economy;
- Introduction and/ or addition to the local circular economy, closing the loop with regards to resource recovery;
- Reduction in waste transferred to landfill;
- Assistance with achievement of state waste diversion and recovery targets; and
- Continued employment for the local community in the way of jobs.

As described in previous sections, the effects of traffic, dust, odour, noise and visual amenity would be minimal and are not likely to have any impact on the surrounding population. The proposed recycling activities serve to benefit the local community through resource recovery, increased local employment and the provision of compost in the local circular economy.

The proposal would generate positive social impacts through increased local, long-term employment and indirect environmental benefits to the community.

7.12.4 Summary and mitigation measures

Due to a net benefit, no specific safeguards and management measures are proposed.

8 Cumulative Impacts

Cumulative impacts occur when impacts (e.g. dust or odour emissions) from multiple sources cause stress to the environment such that there is a significant overall impact, affecting the availability of resources or causing environmental harm or nuisance.

Table 34 identifies the cumulative impact of the environmental aspects of the development. Due to the small scale of the development, overall impacts are minor and unlikely to cause environmental harm.

Table 34: Cumulative impacts

Environmental aspect	Potential impact	Cumulative effect
Waste management	Recovery of materials results in job creation, conservation of resources, reduction in landfilling and increased supply of materials.	Long term net benefit
Air quality - particulates	There is no expected increase in particulates due to the proposal.	Nil
Odour	Odorous emissions are not expected to result from the proposal.	Low
Noise	The operation of the facility would not result in exceedance of noise criteria.	Nil
Water quality and soil	The proposal would not result in of water contamination or soil contamination. Installation of water quality controls results in improved water quality at discharge.	Minor benefit
Traffic	The additional truck movements would not result in a loss of road service.	Low
Amenity	Management of the site would adequately control amenity issues.	Nil
Biodiversity	The removal of vegetation would not affect the biodiversity values of the Site.	Nil
Indigenous heritage	No disturbance to indigenous heritage is likely to occur.	Nil
Non-indigenous heritage	No disturbance to non-indigenous heritage is likely to occur.	Nil
Hazards and risks	The site would employ standard measures to adequately contain risk.	Nil

Environmental aspect	Potential impact	Cumulative effect
Socio-economic	The employment of 4 FTE staff members creates economic opportunity locally.	Medium term net benefit

9 Ecologically Sustainable Development

The principles of ecologically sustainable development as applied to the proposed operations are summarised in Table 35 below. The Proposal results in a net gain in long-term ecological sustainability through the implementation of advanced resource recovery.

Table 35: Ecologically Sustainable Development Assessment

Principle	Definition in the EP&A Regulation	Comment
Precautionary Principle	<i>If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.</i>	The risk assessment in section 10 indicates that the residual risk of the activity, after mitigation measures have been employed is minimal. There is no threat of serious or irreversible environmental damage.
Inter-generational equity	<i>The present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.</i>	<p>The Proposal would not consume water or energy resources in quantities that affect the benefit of future generations.</p> <p>The environmental assessment in Section 7 indicates that the health, diversity, and productivity of the environment would be maintained and enhanced by resource recovery operations.</p> <p>Recovery of materials, as opposed to disposal, provides greater inter-generational equity by contributing to the circular economy, decreasing greenhouse gas emissions, and increasing the availability of resources.</p>
Conservation of biological diversity and ecological integrity	<i>Conservation of biological diversity and ecological integrity should be a fundamental consideration</i>	The environmental assessment in Section 7 indicates that ecological integrity would be maintained, as site vegetation does not form part of a critical habitat.
Improved valuation, pricing and incentive mechanisms	<p><i>Environmental factors should be included in the valuation of assets and services, such as:</i></p> <p><i>(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,</i></p> <p><i>(ii) the users of goods and services should pay prices based on the full life</i></p>	<p>Penalties under the PoEO Act, including for the breach of licence conditions, apply to the proposed operations and would impose the 'polluter pays' principle.</p> <p>The life-cycle cost of goods and services is passed to the consumer through Council collection fees, thus causing the users-of-goods to pay for</p>

Principle	Definition in the EP&A Regulation	Comment
	<p><i>cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,</i></p> <p><i>(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.</i></p>	<p>the consumption of natural resources and disposal of waste.</p> <p>Market mechanisms, such as the banning of waste exports, NSW levy on waste disposal and the EPA grant scheme, encourage the diversion of waste from landfill and increased resource recovery. The proposed facility relies on such mechanisms to maximise environmental benefits and minimise costs.</p>

10 Residual Environmental Risk

The table below summarises the potential residual risks arising from conflicting land uses, and their control measures. It also includes an initial and revised risk rating, and the location in this EIS report where more information can be found for control measures.

Table 36: Residual Environmental Risks

Risk	Description	Risk Rating	Control	More Information	Revised Risk Rating
Air Quality	Air pollution (dust and exhaust emissions) from construction and installation activities on site.	Low	Construction phase would be short in duration and able to manage impacts by a Construction Environmental Management Plan. All plant and vehicles used during the construction works would be serviced and maintained regularly. Any vehicles causing excessive air pollution would be identified and reported.	Section 7.2	Low
	Odour and particulate impact to neighbouring properties	High	The facility would be fitted with a state-of-the-art odour control system, in the form of two wet scrubbers. The wet scrubber units would treat any odorous air within the facility with water. Chemical additives may be added to further air treatment if required. This provides 100% redundancy, reducing the risk of	Section 7.2	Low

			potential fugitive odour leakage from the site.		
	Dust emissions from trucks entering and exiting site.	Low	<p>Generation of dust brought onto the site from trucks is not likely due to nature of operations and materials received on site.</p> <p>All materials receipt, handling, processing and loading activities would occur in an enclosed building.</p>	Section 7.2	Low
	Dust emissions from processing of material.	Low	All materials receipt, handling, processing and loading activities would occur in an enclosed building.	Section 7.2	Low
	Dust emissions from stockpiles of material.	Low	All materials receipt, handling, processing and unloading activities would occur in an enclosed building. All loading activities would be undertaken on sealed areas and short infrequent durations	Section 7.2	Low
	Air pollution (exhaust emissions) from vehicles, plant and equipment from site operation.	Moderate	All plant and vehicles would be serviced and maintained regularly. Any vehicles causing excessive air pollution would be identified and reported.	Section 7.2 Appendix G	Low

			An Environmental Management Plan is included as Appendix G and would be implemented for the site, including procedures for the recording, evaluation and actioning of complaints arising from the proposed activities.		
Amenity	Impact to visual amenity from main road or neighbouring properties, due to construction of new facility	Low	The facility is located unobtrusively within an industrial precinct. The site is buffered by the existing rail corridor and roadways. In addition, the site would be further screened using trees and landscaped garden plantings.	Section 7.7	Low
	Potential negative impacts on the locality due to increased traffic.	Moderate	<p>The Proposal distributes the number of vehicle movements per hour so that there are fewer total movements per hour over a longer time period.</p> <p>The shift-based nature of the Proposal means that truck movements would be distributed throughout the day and night and would not create undue levels of traffic or reduce road safety.</p>	Section 7.7	Low
	Potential negative social impacts due to amenity issues including, noise,	Moderate	All areas external to the buildings would be maintained in a clean, tidy and litter free condition.	Section 7.7	Low

	air pollution, visual amenity and pests.		<p>Grassed and landscaped areas would be watered and generally maintained on a regular basis to maintain a high standard of public image.</p> <p>Site management would keep a record of amenity complaints and the method of addressing each.</p>		
Biodiversity	Disturbance or damage to flora and fauna as a result of construction activities on site.	Low	Given the limited works, it is not anticipated that there would be any impacts on local biodiversity as a result of the construction works.	Section 7.10	Low
	Disturbance or damage to flora and fauna as a result of ongoing operation of site.	Low	Given the containment of the site operations within the warehouse, and storage of all materials inside, it is not anticipated that there would be any impacts on local biodiversity as a result of the site operations.	Section 7.10	Low
Hazard and Risks	Potential fire risks associated with operating an OTS. Sources of ignition are mainly machinery used on site and the temporary storage of materials.	High	<p>The Proponent's <i>Operational Environmental Management Plan</i> (OEMP) would be prepared and include:</p> <ul style="list-style-type: none"> • Fire hazard reduction systems, • Firefighting equipment, 	Section 7.11	Moderate

			<ul style="list-style-type: none"> • Staff training in emergency response. 		
	<p>Chemical or fuel spill, Spills of hazardous materials. Contamination of local waterways or accidental discharge to stormwater.</p>	<p>Moderate</p>	<p>All staff and visitors on site would follow the Proponent's <i>Operational Environmental Management Plan (OEMP)</i>.</p> <ul style="list-style-type: none"> • A Pollution Incident Response Management Plan would be developed in accordance with <i>AS 3745 - 2010 Planning for emergencies in facilities</i> • A register of hazardous chemicals would be compiled, including safety data sheets. Chemical use and storage would be undertaken in accordance with waste product safety data sheets. • Hazardous chemicals would be managed in accordance with the placard and manifest requirements in Schedules 11-13 of the Work Health and Safety Regulation. <p>Regular inspections of materials and storage locations would be undertaken to ensure adequacy of storage provisions.</p>	<p>Section 7.11</p>	<p>Low</p>

	<p>Floodwaters damaging equipment, vehicles, plant, or risk to human health.</p> <p>Pollution event from flood damage and possible contamination of local waterways or accidental discharge to stormwater by chemicals or fuels.</p>	Low	<p>The majority of the site is not located in a flood zone. All operations are confined to inside the facility. Improvements to site drainage or the use of proprietary flood barriers would reduce the risk of flood affection to an acceptable level.</p>	Section 7.11	Low
Indigenous Heritage	<p>Disturbance or destruction of items of Aboriginal Heritage.</p>	Low	<p>Earthworks would be confined to the areas indicated in the design diagram.</p> <p>The likelihood of disturbing or damaging any items of Indigenous heritage under this proposal is very low.</p>	Section 7.8	Low
Non-Indigenous Heritage	<p>Disturbance or destruction of items of Non-Aboriginal Heritage.</p>	Low	<p>The likelihood of disturbing or damaging any items of non-Indigenous heritage under this proposal is very low.</p>	Section 7.9	Low
Noise and Vibration	<p>Noise impacts on sensitive receivers from site operations.</p>	Moderate	<p>The majority of operations would occur within the enclosed building.</p> <p>Providing that the recommendations for noise and vibration impacts are followed, there are no expected exceedances of noise criteria. .</p>	Section 7.3	Low

	Noise impacts from construction works.	Moderate	<p>Construction works would occur during standards hours only (from 7am to 6pm Monday to Friday and from 8am to 1pm Saturday). No construction work would be carried out on Sundays and public holidays.</p> <p>The recommendations set out in the Noise Impact Assessment would be observed at all times.</p>	Section 7.3	Low
Socio-Economic	Impact on local economy	Low	Net positive impact on local economy through generation of employment, increase in supply of recovered resources.	Section 7.12	Low
Traffic and Access	Increased traffic volumes and frequency	Moderate	The proposal distributes the number of vehicle movements per hour so that there are fewer total movements per hour over a longer time period.	Section 7.6	Low
	Increased demand for parking in the surrounding area	Moderate	The development's car park design complies with minimum parking rates in accordance with DCP requirements, featuring 19 car spots, 2 of which are to be designated disabled parking spots. This should provide for the developments staffing requirements and ensure that no overflow of staff or visitors parking in surround streets would impact the parking	Section 7.6	Low

			demand of the surrounding area.		
	Reduction in road safety as a result of increased number of vehicles operating on the road networks around the Site	Moderate	There would be no queueing of incoming trucks on Church Street. All incoming trucks would await access to weighbridge or unloading bays within the site. All vehicles entering and exiting the site would follow the designated routes.	Section 7.6	Low
Waste Management	Waste Generation	Moderate	Waste materials generated from construction or installation works associated with the commissioning of the proposed transfer station would be managed according to the management methods outlined in the Waste Management Plan.	Section 7.1	Low
	Disruption to waste processing operations	Moderate	<p>Equipment and machinery would be inspected and undergo regular maintenance to ensure a high level of operational efficiency is maintained.</p> <p>No obsolete or useless machinery / equipment would be kept on site.</p> <p>Materials stockpile capacities allow for downtime in operation.</p>	Section 7.1	Low

			Excess materials are to be re-directed to another transfer station.		
	Waste mishandling on site	Moderate	<p>The facility would implement the following measures:</p> <p>Staff training on safe waste handling procedures;</p> <p>Ensure correct PPE is available to staff;</p> <p>Maintenance and servicing of equipment is up to date;</p> <p>Acceptance of the appropriate amount of waste on site; and</p> <p>Ensuring received waste is not unintentionally stored or placed out of the confines of the facilities designated stockpile space.</p>	Section 7.1	Low
	Receipt of non-conforming waste at the site	Moderate	<p>Non-conforming loads (not indicative of the recyclable waste stream) would be directed to a facility that is licensed to receive it;</p> <p>Non-conforming waste (contamination) would be stored separately and managed according to waste type; and</p>	Section 7.1	Low

			Standard procedures to deal with non-conforming waste would be included in the Operational Waste Management Plan (OWMP).		
	Impact on neighbouring properties by windblown litter	Low	Incoming organics would be received under airlock within the warehouse. Received waste would then be stored until offtake within the pile storage area. As all materials are stored within the warehouse site, there is very little risk for windblown litter to the neighbouring residents.	Section 7.1	Low
Water and soils	Leachate entering stormwater drains.	Low	No processing of waste would occur on site and all stockpiling of materials would occur inside the warehouse. Therefore, there would be low chance of generation of leachate from stormwater.	Section 7.4	Low
	Leachate or run off entering nearby railway corridors	Low	No processing of waste would occur on site and all stockpiling of materials would occur inside the warehouse. Therefore, there would be low chance of generation of leachate from stormwater	Section 7.4	Low
	Flood waters entering site	Low	The site is not primarily located on flood prone land. If in the	Section 7.4	Low

			rare event flood waters enter the site, it could lead to accidental discharge of leachate generated from contact with materials.		
	Disturbance of potential acid sulfate soils (PASS) causing environmental harm	Low	The acid sulphate soils category is Class 5. Class 5 is considered to be of least concern regarding the presence of PASS. As such no PASS has been detected in the vicinity of the site according to the NSW eSpade tool.	Section 7.5	Low
Security	Potential for trespass of individuals on the site or neighbouring properties originating from the new development.	Low	<p>The site is secured with lockable double gates at the entrance. Visitors and staff pass via a weighbridge and gatehouse to enter the facility. Signage gives hazard information, speed limits and hours of operation. Fencing protects the site from intrusion.</p> <p>The receipt and offtake of FOGO waste are completely handled within the warehouse for ease of surveillance. The facility would be physically distanced and is not visible from public areas. It should therefore not attract people to the location.</p> <p>The site would have fencing around all sides except where the frontage which is</p>	Section 7.7	Low

			characterised by the main industrial building. Gates and building access would be granted by key or swipe card access and key points of entry (including weighbridges) would be fitted with CCTV for security, risk management and material load monitoring.		
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10.1 Summary of Environmental Risk

The overall risk of the operations is found to be low. Appropriate measures can be employed to reduce and manage impacts.

11 Summary of Mitigation Measures

Measures to mitigate the predicted environmental impacts associated with construction and operation of the Proposal have been proposed in Section 8. A brief description of management plans has been included. Table 37 below outlines the mitigation measures proposed for this development.

Table 37: Summary of mitigation measures

Environmental Management	Mitigation Measures
<p style="text-align: center;">Waste Management</p>	<p>Construction</p> <ul style="list-style-type: none"> Waste materials generated from construction or installation works associated with the commissioning of the proposed MRF would be managed according to the management methods outlined in the Waste Management Plan prepared for the proposed development, attached as Appendix I. <p>Waste management</p> <ul style="list-style-type: none"> Non-conforming loads (not indicative of the recyclable waste stream) would be directed to a facility that is licensed to receive it. Hazardous materials to be stored separately and in a manner that avoids risk (e.g. in a bunded container, away from flammable materials, as appropriate). Hazardous materials are managed according to a Safety Data Sheet (SDS) and labelled, stored and handled according to the SDS. Liquid waste e.g. in bottles, would be decanted into a bunded container. Liquid waste would be sent to a facility that is licensed to receive it if received in substantial quantities (not expected). Asbestos is not accepted at the facility. If asbestos is initially identified prior to tipping, the entire load would be rejected and re-directed to a facility that is licensed to receive it. If asbestos is encountered after tipping, it would be isolated, wrapped, quarantined and taken to a facility that is licensed to receive it. Non-conforming waste and residual waste is to be stored separately and is not to be re-mixed with sorted materials. All waste would be delivered and processed internally to avoid litter and amenity issues. <p>Ongoing housekeeping</p> <ul style="list-style-type: none"> All areas external to the buildings would be maintained in a clean, tidy and litter free condition; Grassed and landscaping areas would be watered and generally maintained on a regular basis to maintain a high standard of public image. Grassed areas would be mown as required during seasonal variations and kept free of any windblown litter; Internal roads, kerbs and channels would be inspected, maintained and cleaned regularly to ensure they are both oil and litter free at all times;

Environmental Management	Mitigation Measures
	<ul style="list-style-type: none"> • MRF equipment and machinery would be inspected and undergo regular maintenance to ensure a high level of operational efficiency is maintained; • All signs on site would be professionally painted and maintained in a clean and legible condition. Signs would be washed at least once per month or as necessary; and • No obsolete or useless machinery / equipment would be kept on site. <p>Record Keeping and Reporting</p> <ul style="list-style-type: none"> • Record Keeping and Reporting would be in accordance with the PoEO (Waste) Regulation <p>Operational Environmental Management Plan (OEMP)</p> <ul style="list-style-type: none"> • Material storage, handling & disposal: <ul style="list-style-type: none"> ○ Received materials would be processed and transported on a continual basis with minimal storage held on site where practicable, including the prompt removal of waste from site, ○ Due to the high potential for windblown litter, during delivery of recyclables to the MRF and to ensure that spillage does not occur during unloading and on windy days, a minimum number of doors shall be opened to prevent a wind-tunnel effect, ○ All vehicles transporting baled materials would be securely fastened and covered to prevent the distribution of litter, and ○ A clean up of litter would be undertaken along internal and adjoining roads and fence lines, including externally, when identified during daily inspections <p>Procedural requirements</p> <p>The OEMP would contain over-arching procedural requirements and responsibilities which must be adhered to by all staff and contractors. These procedures would be reviewed annually (or as required) and updated by suitably qualified staff of external specialist.</p> <p>Additionally, as the MRF would be a processor of waste, the proponent would ensure subcontractors meet all legal obligations as a minimum by ensuring compliance with the following:</p> <ul style="list-style-type: none"> • <i>Protection of the Environment Operations Act 1997; and</i> • <i>Protection of the Environment Operations (Waste) Regulation 2014.</i>
<p>Air Quality</p>	<ul style="list-style-type: none"> • All materials receipt, handling, processing and loading activities would occur in an enclosed warehouse; • External roadways at the Proposal site would all be constructed of hardstand/paved surface which would be regularly swept to ensure that silt loadings are minimised. In addition, vehicle speeds within the Proposal site

Environmental Management	Mitigation Measures
	<p>would be limited to 15 km·hr⁻¹, which would also ensure that any resuspension of deposited material is reduced.</p> <ul style="list-style-type: none"> An Air Quality Management Plan (AQMP) would be prepared and implemented for the site, including procedures for the recording, valuation and actioning of complaints arising from the proposed activities.
Noise and Vibration	<p>Construction:</p> <ul style="list-style-type: none"> The recommendations in the <i>Construction Noise and Vibration Management Plan</i> would be adhered to (Koikas 2022). <p>Operation:</p> <ul style="list-style-type: none"> The operation of vehicles transporting raw and finished material is to be kept to the schedule identified. Appropriate processes for complaints handling would be established An option to mitigate noise would be implemented, either by closing roller doors A, F and I during night time hours, or by constructing a 3m high noise barrier. <p>Should substantiated complaints arise during construction works that cannot be managed through work schedules, additional noise controls may be implemented in accordance with measures outlined in Section 6.3.2 of the Acoustical Report (Appendix K).</p>
Water and Soil	<ul style="list-style-type: none"> Flood controls would consist of either: <ul style="list-style-type: none"> Option 1 – Installation of permanent proprietary flood barriers at roller door entrances and permanent impermeable concrete bund at flood affected warehouse walls to flood planning (1% AEP flood level plus 0.5m freeboard), or Option 2 - Works to improve site drainage and the use of temporary flood barrier to protect to the flood planning level. Throughputs would be loaded, stored and processed within the warehouse to avoid contact with stormwater Containment of firewater would be achieved using a stormwater valve to avoid downstream discharge Filtration baskets would be installed on stormwater pits to maintain stormwater quality from the Site A Gross Pollutant Trap would be installed at the end of site drainage to collect litter The storage of diesel and gas would be above the flood level to avoid contact with floodwaters Construction impacts would be controlled by an Erosion and Sedimentation Control Plan, in accordance with <i>Managing Urban Stormwater: Soils & Construction</i> (Landcom, 2004).

Environmental Management	Mitigation Measures
	<ul style="list-style-type: none"> • During the construction phase, all Sydney Water assets in the vicinity of construction works would be identified and protected • A Flood Evacuation Plan would be prepared for the Site and displayed in a prominent position. • Spills would be cleaned up immediately in accordance with a pollution Incident Response Management Plan
Traffic and Access	<ul style="list-style-type: none"> • Site speed limits are to be observed at all times; • No queueing of incoming trucks would be allowed to occur on Church Street. All incoming trucks would await access to weighbridge or unloading bays on site; • All vehicles entering and exiting the site must follow the designated routes; • 19 car parking spaces are to be provided; • Two accessible spaces and an adjacent shared space be provided at a width of 2.4m and a length of 5.4m, with the shared space containing a centrally located bollard offset by a distance of 800 mm from the edge of the accessway; • Visitor bays be provided at a minimum width of 2.6m and a length of 5.4m and are signed as visitor parking bay; • A spotter can be deployed to minimise the potential for conflict with other trucks circulating within the internal industrial building; • A minimum headroom clearance of 4.5m required to be provided for an AV style vehicle; • Pedestrian pathway be provided at a width of 1.2m with yellow pavement markings; • Installation of 'watch for trucks' signage on either side of the main truck entrance gate and signage installed within the truck entry access indicating 'watch for pedestrians'; and • Splays be provided on either side of the entry access to facilitate safe entry/exit for trucks.
Amenity and Security	<ul style="list-style-type: none"> • All areas external to the buildings would be maintained in a clean, tidy and litter free condition; • Grassed and landscaped areas would be watered and generally maintained on a regular basis to maintain a high standard of public image. Grassed areas would be mown as required during seasonal variations; • Internal hardstand, kerbs and channels would be inspected, maintained and cleaned regularly to ensure they are always oil and litter free;

Environmental Management	Mitigation Measures
	<ul style="list-style-type: none"> • All signs on site would be professionally painted and maintained in a clean and legible condition. Signs would be washed at least once per month or as necessary; • No obsolete or useless machinery / equipment would be kept on site; On a periodic basis, and when identified, insects and rodents would be controlled by a qualified, license pest control contractor; • Operations would aim to clear the floor daily to avoid creating habitat for pets and vermin; and • The site operator would keep a record of amenity complaints and the method of addressing each.
Hazard and Risks	<ul style="list-style-type: none"> • Procedures to prevent pollution and manage hazards and risks would be documented in an Operational Environmental Management Plan. • A Pollution Incident Response Management Plan would be developed in accordance with <i>AS 3745 - 2010 Planning for emergencies in facilities</i>. • A register of hazardous chemicals would be compiled, including safety data sheets. Chemical use and storage would be undertaken in accordance with waste product safety data sheets. • Hazardous chemicals would be managed in accordance with the placard and manifest requirements in Schedules 11-13 of the Work Health and Safety Regulation. • Accidental spills on site would be managed through implementation of the Proponent's OEMP. A spill kit would be available and staff would be trained in the use thereof. • Personnel would be trained in response to toxic or hazardous materials emergencies and management of hazardous substances. • Personnel would be required to wear and use appropriate PPE. • Stockpiles of materials would be in designated areas and the site would be kept clear of trip hazards. • Regular inspections of materials and storage locations would be undertaken to ensure adequacy of storage provisions. • Vehicle movements would be restricted to designated areas. Pedestrian walkways would be clearly marked where necessary. • A staff member trained in first aid would be in attendance during operations.
Fire Safety	BCA Compliance <ul style="list-style-type: none"> • All existing perimeter doors to be made operable, all locks to be removed and lever action hardware installed in accordance with AS1428.1-2009.

Environmental Management	Mitigation Measures
	<ul style="list-style-type: none"> • Upgrade fire hydrant system to comply with AS2419.1-2005 and FRNSW waste facilities guideline. • Upgrade fire hose reel system in accordance with AS2441-2005. Install automatic fire suppression system in accordance with AS2118.1-2017 & FRNSW waste facilities guideline. • Installation of additional smoke hazard management systems may be subject to the outcome and recommendations of the future fire engineering report. • Install portable fire extinguishers throughout the building in accordance with AS2444-2001. • Exit and Emergency Lighting to be installed throughout in accordance with AS2293.1-2018. <p>Environment Protection</p> <ul style="list-style-type: none"> • Incorporation of separation distances and height limits for stockpiles; • Installation of infrared cameras; • Installation of a detection and alarm system; • Installation of a fire suppression system; and • Installation of ceiling ventilation. <p>Management measures</p> <ul style="list-style-type: none"> • Implementation of Operational Environment Management Plan containing <i>Fire Prevention and Incident Management</i> and <i>Emergency Response Plan</i>; • Emergency evacuation plan; • Implementation of Environmental Aspects and Impacts (EAI) register; • Annual fire safety statement would be maintained with assistance from expert fire inspection contractors; and • Staff training in emergency response, including: <ul style="list-style-type: none"> ○ Fire awareness ○ Using firefighting equipment ○ Emergency evacuation procedures ○ Site information to convey location of fire systems and stockpile locations.
<p>Biodiversity</p>	<ul style="list-style-type: none"> • Existing vegetation would be maintained for site amenity. • No stockpiling of materials would occur in vegetated areas, during either construction or operation phases. • During construction or any time during the development, any pruning works should be carried out to AS4373 – 2007 Pruning of amenity trees.

Environmental Management	Mitigation Measures
Indigenous Heritage	<ul style="list-style-type: none"> • Earthworks would be confined to the site for undertaking the identified site upgrade works; and • Should an item of Aboriginal significance or suspected significance be discovered on the site, all work in the vicinity of the area would cease and the site management would be contacted immediately to engage in the appropriate course of action which may include contacting a heritage professional, notifying the NSW Department of Environment, Energy and Science and the LALC.
Non-Indigenous Heritage	<p>In the unlikely event of an unexpected find of historical heritage objects, archaeological relicts or sites during excavation operations, appropriate management procedures would be applied as follows:</p> <ul style="list-style-type: none"> • Work would cease immediately in the vicinity of the find and site management would be notified immediately. • A qualified archaeologist would be engaged to assess the find. • The Department of Environment, Energy and Science would be advised as considered necessary and any necessary approvals would be obtained prior to continuing work. • Where known objects or sites would be impacted, all recovery or management of impacts would be in accordance with a Statement of Heritage Impact.
Socioeconomic Impacts	No mitigation measures are proposed or necessary.

12 Justification and Conclusion

12.1 Justification

The proposal to develop an organic waste transfer station with a throughput capacity of 80,000 tpa at 109A Church Street, Lidcombe is justifiable, considering:

- The site is suitably located and buffered by another industrial use and rail lines on all sides.
- The site is appropriately zoned;
- There is a strategic and operational need for increased organic waste transfer capacity in the SMA, to facilitate current and future services to bulk haul material to the extremities and outside of Sydney;
- Due to the inevitable expansion of FOGO collection services to Cumberland and surrounding Council areas;
- The development conforms with the objectives of State and Federal waste and recycling policy and legislation, by increasing the diversion of waste from landfill and protecting the environment; and
- The development is able to meet specific requirements of environmental planning instruments.

The Proposal would have the following benefits:

- Provide 80,000 tpa of municipal and commercial organic transfer capacity out of the inner western Sydney region;
- Contribute to meeting NSW waste reduction and resource recovery targets;
- Create up to 4 new, local, full time ongoing jobs and associated economic benefits in the Lidcombe area;
- Generate short term construction and installation jobs;
- Create a viable solution for the bulking and transfer of organic waste in the SMA;
- Provide a catalyst for proximal Council's and businesses to adopt organic waste collection services (namely food waste);
- Help grow local markets for recycled organic materials; and
- Reduce landfill void space consumption through diversion of organic waste.

An environmental impact assessment of the Proposal has been undertaken and is presented within this EIS. The applicant is seeking to develop the organics transfer station at the subject site to provide sufficient transfer capacity for Council's and commercial business in surrounding areas. The proposal would allow for greater organic resource recovery from waste generated across the inner western Sydney region through the provision of a local distributor of bulked source separated organic waste.

The Proposal is situated in a General Industrial zone for which waste management activities are permissible under the *SEPP (Transport and Infrastructure) 2021*. The proposed development has been shown to be consistent with the relevant local and State government planning instruments and waste management strategies. No significant environmental impacts have been identified during the preparation of the EIS. The environmental impacts identified are able to be mitigated through the implementation of the measures for construction and operation summarised in Section 11.

An Environmental Management Plan (EMP) would be developed for the site, in accordance with the management system and the mitigation measures as outlined in this EIS. Assuming this EIS and EMP are successfully implemented, no significant environmental impacts during operation are predicted.

12.2 Conclusion

The Proposal, identified as Designated Development, has been subject to an Environmental Impact Statement in accordance with the Environmental Planning and Assessment Act 1979 and the Secretary's Environmental Assessment Requirements. The potential environmental, social and economic impacts, both direct and cumulative, have been identified and thoroughly assessed as part of this EIS. The assessment has concluded that no significant environmental impacts have been identified as a result of the Proposal. It is considered that any potential impacts can be satisfactorily mitigated through a range of measures and management strategies that have been identified within the EIS. In addition, the Proposal has been assessed against – and has been found to be consistent with - the priorities and targets adopted in relevant published and draft State plans, as well as Government policies and strategies.

The Proposal would provide significant benefit in terms of providing a key piece of supporting infrastructure to the inner and central west of Sydney to accommodate the rollout of municipal and commercial food waste (and garden waste) services.

13 References

13.1 Subconsultant Reports

109A Church Street, Lidcombe (NSW) – Traffic Impact Assessment Report; EB Traffic Solutions (2023)

Detailed Site Investigation (DSI); Foundation Earth Sciences (2022)

Proposed Organics Transfer Station Odour Modelling and Management Assessment; The Odour Unit (2023)

DA Cost Report – New Organic Waste Transfer Industrial Facility; Section 94 (2023)

109a Church St, Lidcombe – Organics Transfer Station – Noise Impact Assessment; Pulse White Noise Acoustics (2023)

13.2 Guidelines and Documents

Applying SEPP 33 (DoP, 2011)

Environmental Guidelines: Composting and Related Organics Processing Facilities (2003) Department of Environment and Conservation (NSW)

Environmental Guidelines: Preparation of Pollution Incident Response Management Plans (2012) NSW EPA

Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011)

Multi-Level Risk Assessment (DoP, 2011)

National Waste Policy 2020

NSW Climate Impact Profile (2010) DECCW NSW

NSW Fire and Rescue: Fire Safety in Waste Facilities (27 February 2020)

13.3 Legislation and Standards

Biodiversity Conservation Act 2016

Coastal Management Act 2016

Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Contaminated Land Management Act 1997 No 140

Cumberland Development Control Plan 2021

Cumberland Local Environmental Management Plan 2021

Environment Protection and Biodiversity Conservation Act 1999

Environmental Planning and Assessment Act 1979

Environmental Planning and Assessment Regulation 2021

Heritage Act 1977

Marine Parks Act 1997

National Measurement Act 1960

National Parks and Wildlife Act 1974

NSW Industrial Noise Policy 2000

NSW Waste Avoidance and Resource Recovery Act 2001
Environment Operations (General) Regulation 2022
Protection of the Environment Operations (Waste) Regulation 2005
Protection of the Environment Operations Act 1997
Secretary's Environmental Assessment Requirements (SEARs) 1592
State Environmental Planning Policy (Planning Systems) 2021
State Environmental Planning Policy (Biodiversity and Conservation) 2021
State Environmental Planning Policy (Resilience and Hazards) 2021
State Environmental Planning Policy (Transport and Infrastructure) 2021
State Environmental Planning Policy (Industry and Employment) 2021
Water Management Act 2000

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- Appendix O - Site Waste Management Plan
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Appendix A Existing Development Consents

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Appendix B Site Surveys

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Appendix C Capital Investment Value Report

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Appendix D Secretary's Environmental Assessment Requirements

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Appendix F Proposed Site Plans

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Appendix G Environmental and Odour Management Plans

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Appendix H Stakeholder Consultation Letter

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Appendix I Odour Impact Assessment

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Appendix J Noise Impact Assessment

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Appendix K Stormwater Concept and Erosion Control Plan

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Appendix L Detailed Site Investigation

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Appendix M Traffic Impact Assessment

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Appendix N Aboriginal Heritage Information Management System (AHIMS) Report

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Appendix O Site Waste Management Plan

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Appendix P Site CGI Renders

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