

# Macleans Waste Management Facility Upgrade Environmental Impact Statement

transport | community | environment | industrial | food & beverage | energy



**Prepared for:**

**Client representative:**

**Date:**

Macleans Waste Management

Andy Carlile

12 January 2018  
Rev02

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Date: 1 November 2017

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## Glossary and Abbreviations

AHIMS	Aboriginal Heritage Information Management System
C&D	Construction and demolition
DD	Designated Development
DPE	Department of Planning and Environment
EIS	Environmental impact statement
EPA	NSW Environment Protection Authority
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>NSW Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environmental Protection Licence
JRPP	Joint Regional Planning Panel
LEP	Local Environmental Plan
LGA	Local Government Area
MNEs	Matters of National Environmental Significance
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NSW	New South Wales
OEH	NSW Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
PEA	Preliminary Environmental Assessment
POEO Act	<i>NSW Protection of Environment Operations Act 1997</i>
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
TPA	Tonnes per annum
WM Act	<i>NSW Water Management Act 2000</i>

# Statement of Authorship

## Submission of Environmental Impact Statement (EIS)

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### Development Application:

Proponent Name: Macleans Waste Management

Proponent Address: 33-37 Plasser Crescent, North St Marys, NSW

Land to be Developed: Lot 16 DP263353

Development Description: Macleans Waste Management Facility Upgrade

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### Declaration: I declare that:

- the statement has been prepared in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000;
- the statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates; and
- that the information contained in this statement is neither false or misleading.

Name: Jessica Berry  
**pitt&sherry**

Signature:



Date: 1 November 2017

## Executive Summary

The Macleans Waste Management (MWM) proposal comprises the expansion, upgrade and operation of the existing construction waste management facility located at 33-37 Plasser Crescent, North St Marys. The facility is a waste sorting facility capable of sorting cardboard, paper, timber, gyprock, plastics, metals, bricks, soil, sand, concrete and general waste which is then delivered to commercial facilities involved in the recovery of these wastes. This Proposal will expand the facility's current approved processing capacity from 14,673 tonnes per annum (tpa) to 30,000 tpa which will further reduce the volume of construction waste going to landfill, increase tonnes of resources recovered for the growing closed loop economy, and contribute to the local economy through employment of up to five additional staff.

There are limited facilities in Sydney that specialise in the sorting of construction waste, and those operators that do concentrate on the recovery of the 'heavy' fraction (i.e. concrete, brick and tile) rather than the light fraction. Typically, the light component of construction waste is landfilled.

MWM is a unique operation as they sort both the light and heavy fraction of construction waste thus diverting a larger proportion of waste from landfill and recycling a larger proportion of construction waste. This is driven in part by MWM clients who are seeking certainty that a high proportion of their construction waste is being appropriately sorted and recycled.

The proposed upgrades will include minor excavation for the installation of a weighbridge and truck wheel wash, construction of a site office, provision of six car parking spaces and installation of two additional air vents. Additional site plant and operational equipment will also be installed inside the shed to cater for the higher tonnages of wastes to be sorted.

This Environmental Impact Statement (EIS) has been prepared to assess and document the potential environmental impact of the construction and operation of the upgraded construction waste management facility. It also documents the key features of the Proposal, including the likely construction method and operation. The waste management facility would be constructed and operated in accordance with the mitigation measures proposed in this EIS, any submissions report and/or Secretary's report with recommendations, and the Minister's conditions of approval. The EIS has been prepared in accordance with the SEARs for the proposal as outlined in Section 1.5.

Preparation of the EIS involved detailed specialist assessments of key environmental issues including surveys, data analysis and predictive modelling, as well as community and stakeholder consultation. The EIS process included the identification of the key risks and confirmation of those issues that are likely to require the most focus in terms of management and mitigation.

The EIS concluded that whilst the Proposal would have some impacts on air quality, stormwater, and traffic; these impacts are not significant and can be reduced to an acceptable level with the implementation of appropriate mitigation and management measures as outlined in Section 19.2. Furthermore, the Proposal can be constructed and operated without limiting existing or future land uses on or surrounding the Site.



## 1. Introduction

This Environmental Impact Statement (EIS) has been prepared by **pitt&sherry** on behalf of Macleans Waste Management (MWM) to support a Designated and Integrated Development Application (DA) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for a proposed waste facility upgrade.

The existing waste facility was approved under DA 11/1166.01.

### 1.1 Proposal Overview

MWM proposes to upgrade their existing facility (the “Proposal”) in North St Mary’s, NSW (the “Site”). The facility upgrades include:

- Installation of a weighbridge on the western side of the site shed
- Minor excavation as required to install plumbing for wheel wash
- Installation of a truck wheel wash at the southern gate
- Construction of a raised site office with internal stairs and air tight door
- Construction of additional storage areas within existing shed
- Provision of six car parking spaces
- Installation of two additional air vents for site shed.

Additional site plant and operational equipment will also be installed inside the shed (see Appendix D) including:

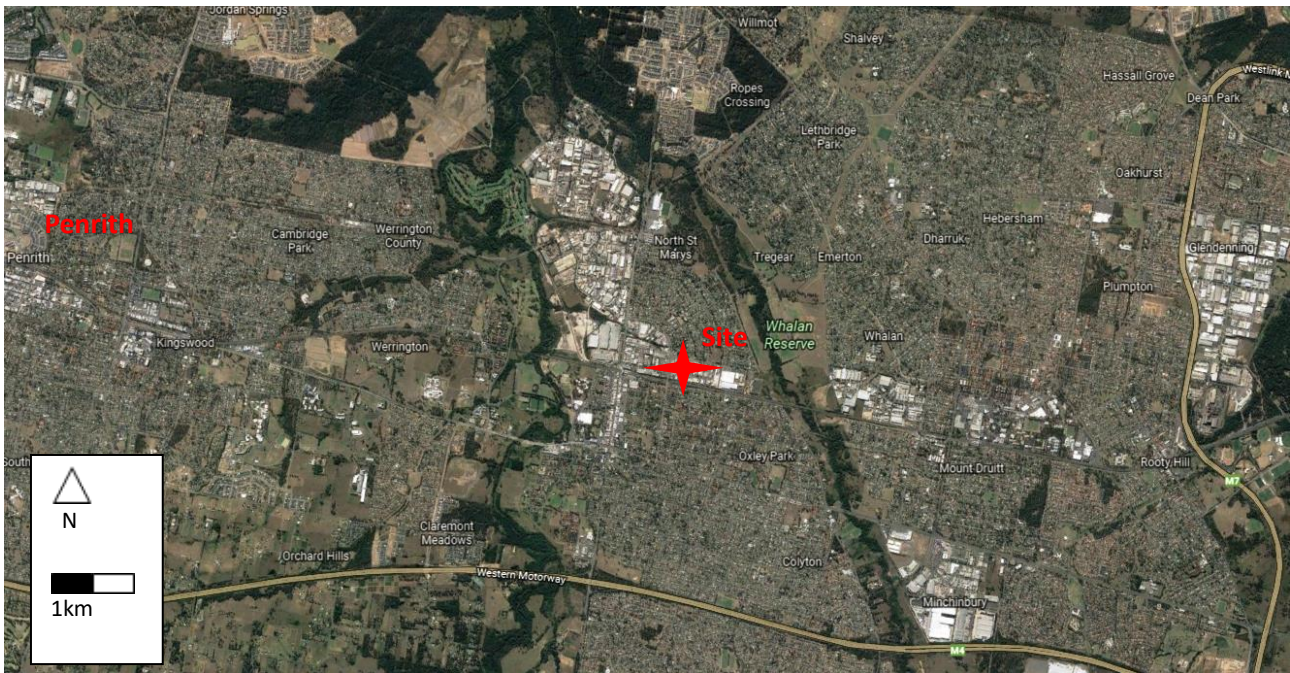
- Hopper style feeder to accept material from an excavator or loader
- Rubber conveyor belt
- Over band magnet
- Ballistic separator
- Elevated and enclosed conveyor sorting room (manual separation).

The upgrade will enable MWM to process an increased quantity of waste, up to 30,000tpa (subject to obtaining an Environment Protection Licence (EPL)) and increase the proportion of products recycled from the construction waste received on site.

### 1.2 Proposal Area

The Site is located at 33-37 Plasser Crescent North St Marys, within the Penrith Local Government Area (LGA) approximately 40km from the Sydney CBD, New South Wales (Figure 1 Locality MapFigure 1 Locality Map).

For the purpose of this EIS the proposal area is contained to Lot 16 DP263353 which is approximately 0.2 ha. Figure 2 shows the Site relative to local features, major roads and sensitive receivers. The facility is approximately 140m from a low density residential area and 130m from a public recreation zone.



Source: Google Earth

Figure 1 Locality Map



Figure 2 Proposal locality

### 1.3 The Proponent

The proponent for the Proposal is MWM as the owner of the Site and operator of the existing facility.

MWM has worked in the construction waste business for over thirty years with a head office in Emu Plains. Key clients of MWM include Mirvac, Rawson Homes, Mc Donald Jones Homes and AV Jennings. Following the upgrade of the facility, MWM will continue to operate the Site.

## 1.4 Approval Pathway

A Preliminary Environmental Assessment (PEA) was prepared for submission to the NSW Department of Planning and Environment (DPE) to inform DPE about the Proposal, identify and prioritise potential environmental impacts, and assist in preparation of the Secretary's Environmental Assessment Requirements (SEARs) for the EIS (under Part 4 of the EP&A Act). This EIS has been prepared to accompany the Designated and Integrated Development Application for the Proposal under Part 4 of the EP&A Act. The consent authority for the Development Application is Penrith City Council and the determining authority is the Sydney West Joint Regional Planning Panel (JRPP).

The Proposal is a scheduled activity under the *Protection of the Environment Operations Act* (POEO Act) (Schedule 1, Clause 34 and Clause 42) and will require an EPL prior to operation. The existing facility is currently in the process of obtaining an EPL for the processing of 14,673 tonnes per annum. As such a variation to this licence will be required for the increased annual capacity of the Site, up to 30,000 tpa, as a result of the Proposal.

## 1.5 Purpose of this Document

This EIS has been prepared pursuant to the SEARs for the Proposal issued by the DPE on 11 April 2017. A copy of the SEARs is included in Appendix A.

Appendix B provides a summary of the SEARs and identifies where they have been addressed in this EIS. The purpose of this EIS is to:

- Provide a comprehensive description of the Proposal and the lands affected
- Assess the potential environmental impacts of the Proposal on the physical, social and economic environment (having regard to both current and future land use)
- Identify management and mitigation measures to be implemented to minimise potential impacts associated with the Proposal
- Justify the Proposal, including suitability of the Site and its alignment with whether the Proposal is in keeping with public interest.

The key recommendations and management measures described in the report have been included in Section 18.1. It is expected the management measures will be reflected in the Conditions of Approval.

## 1.6 Structure of the EIS

The EIS provides the following:

- A description of the Proposal site and locality (Chapter 2)
- A description of the project including construction methodology (Chapter 3)
- An overview of the relevant planning legislation (Chapter 4)
- The consultation process and stakeholder consultation performed to date (Chapter 5)
- Risk Assessment (Chapter 6)
- Environmental Assessment (Chapters 7 to 19) summarising the existing conditions, potential impacts and mitigation measures for a range of environmental aspects.



## 1.7 Project Team

**pitt&sherry** has prepared this EIS on behalf of MWM.

Specialist studies were completed during the assessment process as outlined in Table 1. The various technical reports produced by these specialists are provided in the Appendices to this EIS.

**Table 1 Project Team**

Role	Specialists	Reference
Air Quality Impact Assessment	Todoroski Air Sciences	Appendix E
Noise and Vibration Impact Assessment	Muller Acoustic Consulting	Appendix F
Traffic and Transport Impact Assessment	SECA Solution	Appendix G
Landscape Plan	Hulton Larson Landscape Architect	Appendix H

## 1.8 Project Justification

In accordance with DA 10/1166.01 the site is permitted to process up to 14,673 tonnes per annum (tpa). The facility currently processes approximately 5,500 tpa however the EPA have issued a Draft EPL for 14,000 tpa and it is currently undergoing review. This Proposal will facilitate MWM processing up to 30,000 tpa (subject to a variation to the Draft EPL).

The population growth for the area is 1.5% per annum, which is above the NSW average, and residential development forecasts assume the number of dwellings in Penrith City will increase by an average of 1,250 dwellings per annum to 96,665 in 2036 (Penrith City, 2017). As such, MWM have identified that due to development in the surrounding area, there are increasing quantities of residential construction waste that will be produced and subsequently that can be accepted by MWM, sorted and redistributed, diverting it from landfill.

The nearest alternate construction waste recovery facilities are the Rock and Dirt Recycling Facility approximately 16km north of the MWM facility in South Windsor and the Bingo Recycling Centre approximately 3km north west of the MWM facility in St Marys. The Fairfield City Council Recycling Drop off Centre in Wetherill Park is also located approximately 16km south east of the existing facility and accepts small volumes of brick and concrete.

There are limited facilities in Sydney that specialise in the sorting of construction waste as the majority of operators concentrate on the recovery of the 'heavy' fraction (concrete, brick and tile) rather than the light fraction. This component of the waste is typically landfilled.

MWM currently provides unique services to clients by sorting residential construction waste and then delivering it to alternative commercial facilities involved in the recycling of inert wastes. MWM clients, such as Mirvac, have corporate goals to have a 100% recycle rate by 2030. This proposal assists MWM and their clients in achieving these goals.

As such, MWM seeks to upgrade the facility to enable processing of an additional 24,500 tpa of construction waste on Site. This will increase recovery of waste in the Western Sydney area resulting in diversion of waste from landfill and reduced transport distances for waste delivered to alternative recovery facilities.

The operation and design of the Proposal would be managed in accordance with the principles of the waste hierarchy and the *Waste Avoidance and Resource Recovery Act 2011*. It supports the NSW EPA target of an 80% recycling rate for construction and demolition waste by 2021 (NSW EPA, 2014).

Key benefits of the Proposal include:

- Sustainability – the reduced volume of construction waste going to landfill will increase the life of existing landfill cells and delay the need to construct new landfill cells with associated expenditure
- Resource Recovery – the resources recovered as a result of the Proposal would be recycled, repurposed or reused contributing to the growing closed loop economy in the Australian construction and demolition sector
- Local Economy – the existing facility employs five full time employees and as a result of the Proposal this will be increased to up to ten full time employees contributing to the local economy.

## 1.9 Options and Alternatives Considered

The following options have been explored by MWM to increase their capacity to recover residential construction waste in the Western Sydney region.

### 1.9.1 On-site Separation (at source)

MWM works with their clients (developers and builders) to maximise on-site separation and diversion from landfill of recyclable materials. This reduces the need for off-site sorting facilities however, there are still large quantities of waste that cannot be cost effectively separated at source. These wastes need to be taken to a sorting / processing facility to avoid being landfilled making on-site separation of all waste not feasible.

### 1.9.2 Upgrade Existing Site

The existing site currently processes approximately 5,500tpa and has the potential to be upgraded to increase processing capacity. The site has appropriate infrastructure in place including hard surfaces for trucks, noise, dust, water and sediment controls as well as developed systems and processes to effectively manage the construction waste.

By upgrading the current facility, it will prevent the need for identifying a new site, re-establishing all of the infrastructure and the financial costs associated with this. In environmental terms, it maximises the current land use, minimises the need for raw materials, energy and other resources. These components contribute to the environmental objectives in increasing resource recovery in Western Sydney.

For the reasons above, the upgrade to the existing site at North St Marys is the preferred option.

In designing the upgrade of the existing site a number of design elements were assessed during the development of the proposal. These include:

- Raising the roof height to allow for larger vehicle (no longer necessary for proposed traffic path)
- Circular movement path for trucks over weighbridge and into southern entrance (no longer necessary for proposed traffic path)
- Maintaining the current staff office and toilet area (no longer necessary as new equipment can be installed on top or around)

### 1.9.3 Do Nothing

If MWM was unable to increase their capacity for recovery of residential construction waste on site, the demand for construction waste recovery in the region may not be adequately addressed. Western Sydney remains a significant growth area with large areas of residential development planned. This could result in potentially recoverable construction waste being disposed of to landfill.

## 2. Site Description

### 2.1 Overview

The Site is located at 33-37 Plasser Crescent, North St Mary's within an industrial area. There is limited vegetation planted for landscaping purposes within the site.

The site was previously owned and operated by A&C Recycling Services and A&C Bins under DA 11/1166.01. In 2016, MWM purchased the property and the associated construction waste recycling facilities and operations. The facility accepts construction waste materials from new builds (including cluster homes, project homes and commercial developments).

The Site is located on land zoned as general industrial IN1 (Penrith Local Environmental Plan 2010). The key site features are identified in

Figure 3 and

Figure 4 and is described as follows:

- A shed approximately 1200m<sup>2</sup> (28m wide and 42m long) containing skips, sorting equipment and site office. The shed has a concrete floor and zinalume (zinc plated steel) walls and roof
- Concrete hardstand surrounding the shed with some gravel areas and limited landscaping along the western fenceline
- Fence bordering the south and west site boundaries
- Stormwater network:
  - Roof rainwater down pipes
  - Three outdoor pits covered with grate filters and non-woven geotextile membrane
  - Indoor pit covered by a steel plate
  - Underground 300mm piping connected to municipal stormwater network.
- Turf between kerb and boundary fences.



Source: **pitt&sherry**

Figure 3 MWM Proposal site facing south



Source: **pitt&sherry**

**Figure 4 MWM Proposal site facing north**

The local topography is generally flat with some gentle rises and slopes. Drainage connecting to South Creek is located approximately 120m north of the Proposal (Figure 2). Ropes Creek is located approximately 1km east of the Proposal. The development is not within close proximity to a sensitive or significant waterway from a public health, ecological and/or economic perspective.

A locality map for the site is provided in Figure 1 and illustrates the location of the Proposal relative to major local features, sensitive residential receivers and waterways.

## 2.2 Surrounding Land Use

Surrounding land use includes industrial businesses to the immediate north and east of the facility and local roads to the immediate south and west. A small retail precinct is located approximately 80m north of the Site.

Low density residential areas are located north east and south of the site and the nearest residential receivers are approximately 140m north and 170m south of the site (Figure 2). St Marys North Public School is located approximately 700m north-west of the site.

Surrounding businesses include Karmart (used car dealer), Freedom Motors (a wheelchair accessible vehicle conversion business), St Marys Prestige Body Repairs and Dunheved Fire Station.



### 3. Project Description

#### 3.1 Overview

The Proposal involves expansion and upgrade of MWM's existing construction waste management facility (the "facility") to enable a processing capacity of 30,000 tpa. The facility currently processes approximately 5,500 tpa of construction waste for recovery, received primarily from construction of new homes (clusters and individual project homes).

The facility will continue to sort waste materials into six separate streams (timber, masonry/non-contaminated heavies, steel, cardboard, plastics and contaminated heavies) to be transported to appropriate recovery facilities. Waste which cannot be recycled would be transported to landfill which is estimated to be approximately 10% of the total materials received at the site.

Materials sorted at the facility include:

- Cardboard
- Timber
- Gyprock
- Plastics
- Ferrous and nonferrous metals
- Mixed lights (medium density cladding, plastics, timber and metal, cardboard and paper)
- Mixed heavies (bricks, soil, sand, concrete)
- General waste.

MWM would undertake all civil works required for the upgrade, including; minor excavation, hardstand, weighbridge, installation of additional site plant and equipment, and construction of additional storage areas within the current building. Construction is anticipated to begin in early 2018 with an approximate duration of 3-6 months. Access to the site would continue as per existing arrangements via Kurrajong Road and Plasser Crescent.

This Section describes the Proposal including preliminary design of the facility and the construction activities to be undertaken. Key design drawings and plans are provided in Appendix D.

#### 3.2 Facility Upgrade Components

The proposed upgrades include:

- Minor excavation as required to install plumbing for wheel wash
- Installation of a truck wheel wash on southern gate
- Installation of a weighbridge on the western side of the site shed
- Construction of a raised site office with internal stairs and air tight door
- Construction of additional storage areas within existing shed
- Provision of six car parking spaces
- Installation of two additional air vents for site shed.

Additional site plant and operational equipment will also be installed inside the shed, including:

- Hopper style feeder to accept material from an excavator or loader
- Rubber conveyor belt
- Over band magnet
- Ballistic separator
- Elevated and enclosed conveyor sorting room (manual separation).

A concept design has been prepared for the Proposal and is included as Appendix D.

### 3.3 Parking

Upgrade of the facility will include the provision of six car parking spaces. Three spaces will be located under the site office and three adjacent the site entrance within the site property as outlined in Appendix D.

In accordance with the Penrith DCP the parking rate for this type of development is 1 space per 2 employees or based upon the floor area. Due to the low number of employees, the provision of 1 space per 2 employees is considered more appropriate than floor area calculations.

The upgrade will result in up to 10 staff on site resulting in a parking requirement of 5 spaces. As 6 spaces are proposed in total the parking provisions are considered to adequately meet the requirements of the DCP.

### 3.4 Landscaping

Landscaping will be undertaken as screening along the fence line fronting Plasser Crescent in accordance with the Landscape Plan (see Appendix H). Due to the limited space available on site no further landscaping is proposed.

### 3.5 Operation of the facility

Activities to be undertaken on the site include the following:

- Business management and administration
- Sorting of materials
- Vehicle loading and unloading
- Vehicle parking
- Management of various size skip bins.

Following the upgrade of the facility, waste will be delivered to the site and processed for transport to alternative facilities in accordance with the process outlined in Section 3.7 and Figure 5.

Current operations will temporarily cease whilst the office is being relocated and equipment is being installed including the wheel wash and weighbridge. It is anticipated that these works would take no more than one week and that in the interim, waste would be diverted to an alternative facility to be processed for recyclables. The facility is predicated on the fact that supply can be diverted at any time in the case of upset conditions/breakdown etc.

### 3.5.1 Traffic and Access

Access to the site for all vehicles would continue as per existing arrangements via Kurrajong Road and Plasser Crescent. All vehicles will enter and exit the site in a forward direction using the site entrance in the south west corner and the site exit on the southern boundary.

Approximately, 30 trucks are estimated to access the site per day with a maximum of 4 trucks per hour resulting in a total of 8 movements per hour. This is an increase from 6 trucks per day. Additionally, 20 vehicle movements at the beginning and end of the day associated with staff movements are anticipated.

No public or associated vehicles will access the site.

The following vehicles operate within and remain on site:

- 1 x 8 tonne excavator
- 1 x 9 tonne articulated loader
- 1 x truck (8 wheeler hooklift)
- 1 x skid steerer loader with sweeper
- 1 x 3 tonne telehandler.

### 3.5.2 Hours of operation

The site is currently approved to operate 7am – 5pm Monday to Friday, 7am – 3pm Saturday, and 10am – 2pm Sunday. There are no operations on public holidays.

To maximise operations, MWM propose extended weekday operating hours to 6am to 11pm Monday to Friday. Saturday and Sunday operations are not proposed to change.

### 3.5.3 Employment

The facility currently employs five full time employees and this will increase to up to 10 full time employees following completion of the Proposal.

### 3.5.4 Operational Environmental Management

An Operational Environmental Management Plan (OEMP) has been prepared for the site. This plan will be updated to address any operational management measures identified in this EIS.

## 3.6 Waste Sources and Quantities

The site is currently approved (DA 10/1166.01) to receive waste including:

*bricks/concrete, soils, green waste, some timber, all metals, appliances, e-waste, mobile phones, all paper and cardboard products, motor oils, batteries, mattresses and x-ray film.  
The quantities of these materials delivered to site may change depending on the type of development at the time, however the total tonnage will not be exceeded.*

Waste is currently sourced from the construction of residential developments including clusters and individual project homes. No new or additional waste sources or types are proposed for the upgrade of the facility.

Following the upgrade, the facility will continue to sort construction waste into six separate streams (timber, masonry/non-contaminated heavies, steel, cardboard, plastics and contaminated heavies) to be transported

to appropriate recovery facilities. Waste which cannot be recycled would be transported to landfill, however this is a small proportion estimated at 10% of the waste received.

A waste audit was conducted on the 11th August 2017, which identified that daily, the facility processes approximately:

- 14.4% 'heavies' (masonry materials)
- 42% contaminated 'heavies'
- 0.7% 'lights' (plastics)
- 27.2% timbers
- 10.5% general waste (landfill)
- 3.7% metals
- 1% cardboard.

As this audit occurred on material sampled from one day of waste entering the facility it may not be representative of all waste entering the facility over time. Prior to detailed engineering design (and construction) of the facility upgrade a statistically representative random sample of waste delivered to the facility will be taken over a duration of at least one month and material types weighed (with the proportion of large item recorded). This understanding of average quantities and variability (standard deviation) will inform exact sizing of equipment, bays and bins.

Table 2 provides the estimated quantity of construction waste that is currently received at the facility per day from project/cluster homes, based on the above audit. Volumes of each waste type are subject to change daily depending on the client's stage of works. All waste is classified as General Solid waste (Non-Putrescible) as per the 2014 NSW EPA Waste Classification Guidelines (NSW EPA, 2014).

**Table 2 Construction waste source and quantities based on audit performed 11 August 2017**

Type	Quantification (tonnes per day)
Timber	4.5
Masonry (brick, soil, sand, concrete)	2.38
Steel	0.61
Cardboard	0.17
Landfill/general waste	1.74
Plastics	0.12
Contaminated heavies	7
<b>TOTAL</b>	<b>16.52</b>

### 3.7 Material Process and Storage Procedures

Construction waste received at the facility is collected directly by MWM from the construction site, as demonstrated in Figure 5.

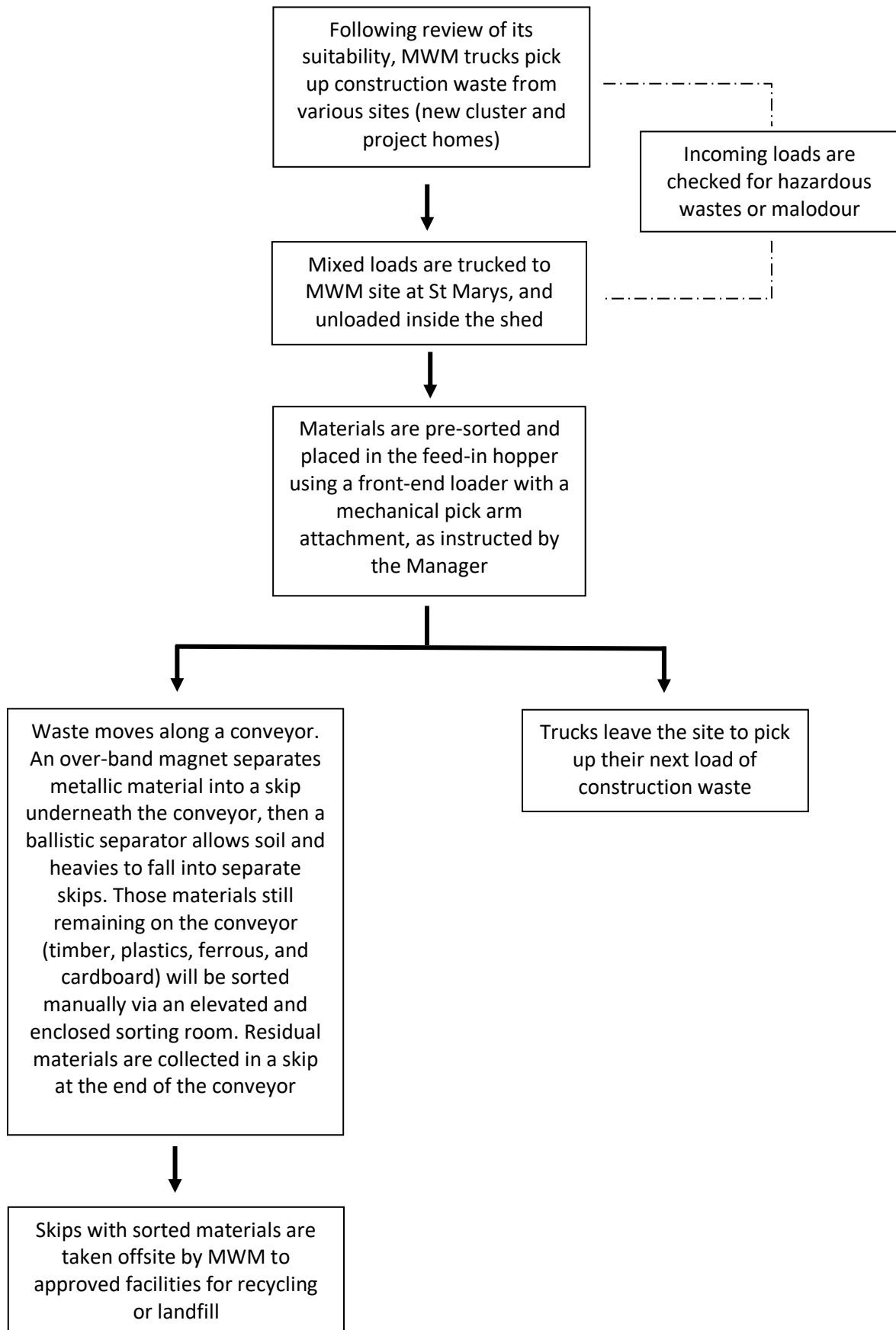


Figure 5 Process of MWM operations including collection and sorting of waste

Prior to loading of the construction waste into skip bins for transport the following waste classification tasks are undertaken:

- Visual review of waste by an MWM driver to identify any contaminants or putrescibles
- Completion of the waste review section of the MWM Site Specific Risk Assessment for Building Site
- Clean up is undertaken by MWM driver prior to loading
- Photographic recording of waste including remote review by MWM Site Supervisor (as required).

Following confirmation of suitability of waste for collection it is loaded into skip bins and then delivered to the North St Mary's facility. Materials are unloaded inside the shed and separated using automatic and manual means. All incoming loads will continue to be checked prior to unloading and processing at the site, with any loads identified to be malodorous to be removed immediately from the site and disposed to an appropriately licenced facility.

In adhering to Condition 9 within the DA, all waste materials stored on-site are contained within a designated area such as a waste bay or bin to ensure that no waste materials are allowed to enter the stormwater system or neighbouring properties. Following upgrade of the facility, all waste materials will continue to be contained.

New sorting equipment (hopper, conveyor, over-band magnet, ballistic separator) will separate out streams such as metals and timber, and then remaining materials will be sorted manually via an elevated and enclosed conveyor sorting room.

The separated material streams are stored in 15m<sup>3</sup> or 24m<sup>3</sup> skip bins for transport off site once the skip bin is full.

Material received on site will not be regularly stored overnight however there may be instances where daily supply was not sufficient to fill a skip for transport off site. Incoming loads that are received late in the day are sometimes required to be stored overnight for sorting the following day. All material is contained within the shed (except for two skips containing steel and timber to be stored outside) and is never stored on site for more than 24hrs.

Those materials that cannot be processed by a secondary facility are disposed to landfill (estimated to be approximately 10% of total received materials).

Incoming and outgoing waste quantities are noted manually in the waste-in docket book and then transferred to a computer based records system.

In accordance with the OEMP, in the unlikely event that asbestos is received at the site, MWM will follow the procedure within the NSW EPA draft protocol for managing asbestos during resource recovery.

### 3.8 Construction Activities

Construction activities associated with the proposal include:

- Installation of a weighbridge on the western side of the site shed
- Minor civil works to install on-ramp and off-ramp for trucks to access the weighbridge (approximately 100mm high) and to install bolts to secure the weighbridge
- Minor external electrical works (by licensed electrical contractors) to install telemetry associated with weighbridge
- Installation of a truck wheel wash at the southern gate
- Minor excavation as required to install wheel wash and plumbing pipework

- Construction of a raised site office with internal stairs and air tight door
- Construction of additional storage areas within the existing shed
- Installation of additional site plant and equipment inside the existing shed
- Provision of six car parking spaces
- Installation of two additional air vents for site shed.

MWM would undertake all civil works, including minor excavation, hardstand, weighbridge, installation of additional site plant and equipment.

### 3.8.1 Weighbridge

No major excavation is required to install weighbridge. The area (10m length x 3.6m width x 0.1m depth) will be excavated using a concrete cutter and drill to accommodate the weighbridge and on and off ramps.

The weighbridge (9m length x 3.6m width) will be placed into the excavated area and bolted into place. A Load Cell NUWEIGH JAC9000 30T with Rinstrum 5200 totaliser indicator (data display unit) or similar is proposed (see Figure 6). The weighbridge will be calibrated after installation. The weighbridge will be calibrated in accordance with manufacturer's instructions at regular intervals.



Figure 6 Indicative Weighbridge (Source: pitt&sherry)

### 3.8.2 Wheel Wash

To install the wheel wash, approximately 1m<sup>2</sup> of existing concrete hardstand at the southern gate will be cut away to allow for excavation. A pit approximately 1m length x 1m width x 1m depth will be excavated for the installation of the wheel wash sump resulting in approximately 1m<sup>3</sup> of spoil for disposal. Once installed, the wheel wash will be concreted into place.

An under-chassis 20 nozzle system (Hartex UCW-350-18-20 with 350L/min flow @215psi and power requirements 45A, 415V or similar, configured for the site) is proposed (see Figure 7). The wheel wash system comprises two parallel galvanised fabricated steel pipes (approximately 40mm outer diameter and 2800mm length) fitted with stainless steel nozzles at 1m separation, and plumbing pipework.



The wheel wash will require minor excavations for plumbing (32mm pipe outer diameter) and drainage. The wash water is captured via drains and pumped to an above-ground filter recycling unit (1,000L) which reduces the amount of water used by the system. Mains water will be used for topping up the system as required due to losses from spray during the operation of the wheel wash. While this spray loss will not be captured, it is anticipated to be minimal quantities.



Figure 7 Indicative Wheelwash (Source: HARTEX)

### 3.8.3 Site Office

A prefabricated site office (9m x 3m) will be installed adjacent the shed and eastern site boundary (see Appendix D). The site office will be elevated with a maximum height of 5.6m constructed on columns. This will require four footings to a depth of approximately 1.2m. The office will be constructed of colorbond to match the existing shed materials and finishes.

### 3.8.4 Plant and Equipment

The plant and equipment to be erected inside the existing shed will be delivered to site in flat rack containers in a series of conveyor sections and supporting legs. Each section of the plant will be assembled separately and lifted into position in accordance with the concept design drawing (Appendix D) by a 25T Franna Crane then secured into place with expansion bolts. Drilling will be undertaken using a cordless rotary hammer drill to a depth of 1.5m over two days during construction.

### 3.8.5 Ancillary Works

Two additional air ventilation units (Axial Circular 4 Pole) will be installed on the lower section of the roof. The external components of the air vents will be located on the lower section (approximately 4m lower than the high section of the roof) and sit approximately 1.3m above the low section. This will not be visible over the existing higher section of the roof.

### 3.8.6 Duration of works

Construction is anticipated to begin in early 2018 with an approximate duration of 3-6 months.



Construction would occur during standard construction hours only between 7am to 6pm Monday to Friday, 8am to 1pm Saturday, and with no works undertaken on Sundays or public holidays.

### 3.8.7 Plant and Equipment

Construction plant and equipment will include:

- Forklifts (3)
- 25t Franna Crane (1)
- Scissor lifts (2)
- Cordless rotary hammer drill
- Hand tools
- Excavator
- Concrete cutter.

## 4. Statutory Planning Framework

This section outlines the statutory framework that applies to the Proposal. It provides an overview of the applicable environmental planning approval process under NSW and Commonwealth legislation and details of other NSW legislation relevant to the Proposal.

The EP&A Act and the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) provide the framework for assessment and approval of development in NSW and are further outlined in Section 4.2.1.

### 4.1 Commonwealth Legislation

#### 4.1.1 Environment Protection and Biodiversity Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) states that an action which has, will have or is likely to have a significant impact on a matter of national environmental significance, may not be undertaken without prior approval of the Commonwealth Minister for the Environment and Energy. The following are identified by the Act as Matters of National Environmental Significance (MNES):

- World Heritage properties and National Heritage places
- Wetlands of international importance (including Ramsar Wetlands)
- Listed threatened species, ecological communities and migratory species protected under international agreements
- Commonwealth marine areas
- Nuclear action
- An action by the Commonwealth or an action on Commonwealth land which is likely to have a significant impact on the environment.

#### World Heritage Properties

The Proposal Area does not contain any World Heritage Properties and is not in close proximity to any such area. On this basis, the Proposal would not impact upon any World Heritage Property either directly or indirectly.

#### National Heritage Places

The Proposal Area does not contain any National Heritage Places and is not in close proximity to any such area. On this basis, the Proposal would not impact upon any National Heritage Place either directly or indirectly.

#### **Wetlands of International Importance (declared RAMSAR Wetlands)**

The Proposal Area is not located within Wetlands of International Importance and is not in close proximity to any such area. On this basis, the proposal would not impact upon any Wetlands of International Importance (declared RAMSAR Wetlands) either directly or indirectly.

#### **Great Barrier Reef Marine Park**

The Great Barrier Reef Marine Park does not occur within or near to the Proposal Area. On this basis, the proposal would not impact upon any areas of the Great Barrier Reef Marine Park.

#### **Commonwealth Marine Areas**

The Proposal Area is not located within a Commonwealth Marine Area and is not in close proximity to any such area. On this basis, the proposal would not impact upon any Commonwealth Marine Area.

#### **Listed Threatened Ecological Communities**

Eight (8) threatened ecological communities listed under the EPBC Act have been recorded within a 10km radius of the Proposal. As the Proposal is confined to the existing disturbed site and would not involve native vegetation clearing or fauna habitat disturbance it is unlikely to impact upon listed threatened ecological communities.

#### **Nationally Listed Threatened Species**

A total of 77 threatened species listed under the EPBC Act have been recorded or have suitable habitat within a 10km radius of the Proposal. As the Proposal is confined to the existing disturbed site and would not involve native vegetation clearing or fauna habitat disturbance it is unlikely to impact upon nationally listed threatened species.

#### **Nationally Listed Migratory Species**

A total of 36 migratory species listed under the EPBC Act have been recorded or have potential suitable habitat within a 10km radius of the Proposal. As the Proposal is confined to the existing disturbed site and would not involve native vegetation clearing or fauna habitat disturbance it is unlikely to impact upon listed threatened migratory species.

#### **Nationally Listed Marine Species**

A total of 41 marine species listed under the EPBC Act have been recorded or have potential suitable habitat within a 10km radius to the Proposal. The Proposal is not located in close proximity to any marine areas and as such is will not impact on any marine species.

### **4.1.2 Native Title Act**

The *Native Title Act 1993* recognises that Aboriginal people have rights and interests to land and waters which derives from their traditional laws and customs. Native title may be recognised in places where Indigenous people continue to follow their traditional laws and customs and have maintained a link with their traditional country. It can be negotiated through a Native Title Claim, an Indigenous Land Use Agreement (ILUA) or future act agreements.

An ILUA is an agreement between a native title group and other parties who use or manage the land and waters. The ILUA process allows for negotiation between indigenous groups and other parties over the use and management of land and water resources, and the ability to establish a formal agreement. An ILUA is binding once it has been registered on the Native Title Tribunal's Register of Indigenous Land Use Agreements.

Searches of the National Native Title Register, the Register of Native Title Claims, and Native Title Applications Registration Decisions and Determinations, on 30 June 2017 identified no current applications or determinations within Penrith LGA. A search of the Register of Indigenous Land Use Agreements identified one ILUA registered within Penrith LGA, the Gundungurra Area Agreement. The proposal site is located outside of this ILUA.

Section 11.3 will outline management and mitigation measures that will be implemented as part of the Proposal to ensure protection of any un-expected Indigenous heritage finds.

## 4.2 New South Wales State Legislation

### 4.2.1 Environmental Planning and Assessment Act 1979

The EP&A Act 1979 and the EP&A Regulation 2000 provide the framework for assessment and approval of development in NSW. The objectives of the EP&A Act are summarised in Table 3 below.

Table 3 Environmental Planning and Assessment Act objectives

Objective	Comments	Project Consistent with objective
Encourage the proper management, development and conservation of natural and artificial resources	<p>The Proposal involves expansion and upgrading of a construction waste recycling facility (the “site”) to enable a processing capacity of 30,000tpa. Potential environmental impacts have been assessed and mitigation measures proposed in this EIS.</p> <p>The assessment identifies that the Proposal, with implementation of environmental management and mitigation measures, can be undertaken without having a significant impact on the environment and provide for an ecologically sustainable development.</p>	Yes
Encourage the promotion and co-ordination of the orderly and economic use and development of land	<p>The orderly and economic use of land is best served by development which is permissible under the relevant planning regime and predominantly in accordance with the prevailing planning controls.</p> <p>The Proposal comprises a permissible development which is consistent with the statutory and strategic planning controls. As detailed in this EIS, the proposal would contribute to the sustainable management of waste and result in positive economic impacts, with appropriate mitigation measures and management strategies being proposed to reduce adverse environmental impacts.</p>	Yes

Encourage the protection, provision and co-ordination of communication and utility services	Power supply, telecommunications, water and sewage management to the site will be via the existing services. No additional utility services will be required for the proposal.	Yes
Encourage the provision of land for public purposes	This objective is not applicable to the Proposal as no public land is located within the Site. No public land is predicted to be affected by the Proposal.	Yes
Encourage the provision and co-ordination of community services and facilities	The proposal would not adversely affect community services and facilities.	Yes
Encourage the protection of the Environment	This EIS assesses in detail the potential for the Proposal to impact upon the local environment and identifies mitigation measures to reduce potential impacts. The Proposal is not expected to have significant adverse impacts on the environment.	Yes
Encourage ecologically sustainable development (ESD)	The proposal is consistent with the principles of ecological sustainable development as outlined in Section 20.3 of this EIS.	Yes
Encourage the provision and maintenance of affordable housing	This objective is not applicable to the Proposal.	N/A
To provide increased opportunity for public involvement and participation in environmental planning and assessment	As outlined in Section 5, Macleans Waste Management has engaged with the community as part of the environmental assessment process. Public exhibition of the EIS and DA provide further opportunity for public participation in the consideration of the Proposal.	Yes

### Designated Development

Under the provisions of Part 4, Section 77A of the EP&A Act the Proposal is Designated Development if the development is declared to be Designated Development by an environmental planning instrument or the regulations, and does not include state significant development despite any such declaration.

The Proposal is declared by Schedule 3, Part 1, Clause 32 of the EP&A Regulation as being Designated Development (DD) as:

- 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 is located within 500 metres of a residential zone or 250 metres of a dwelling not associated with the development and, in the opinion of the consent authority, having regard to topography and local meteorological conditions, are likely to significantly affect the amenity of the neighbourhood by reason of noise, visual impacts, air pollution (including odour, smoke, fumes or dust), vermin or traffic.

## Integrated Development

In accordance with Section 91 (1) ss43 (a), 47 and 55 of the EP&A Act, the Proposal would also be integrated development as it requires an Environmental Protection Licence (EPL) under the Protection of the Environment Operations Act 1997 (POEO Act), to authorise the carrying out of a scheduled activity.

### 4.2.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) is administered by the Environmental Protection Authority and provides for a system of environmental protection licences for scheduled development work and activities, as well as the ability to issue environmental protection notices for pollution and waste management. Environmental offences are also described under the POEO Act.

In accordance with Clause 42 of Schedule 1 of the POEO Act, the facility is a scheduled activity and as such requires an EPL.

The EPA has issued MWM a Draft EPL for 14,000tpa. A variation to this licence will be required for the increase in capacity to 30,000 tpa.

The following matters have been taken into consideration in this EIS in accordance with section 45 of the POEO Act:

- (a) any protection of the environment policies,*
- (b) the objectives of the EPA as referred to in section 6 of the Protection of the Environment Administration Act 1991,*
- (c) the pollution caused or likely to be caused by the carrying out of the activity or work concerned and the likely impact of that pollution on the environment,*
- (d) the practical measures that could be taken:*
  - (i) to prevent, control, abate or mitigate that pollution, and*
  - (ii) to protect the environment from harm as a result of that pollution,*
- (e) any relevant green offset scheme, green offset works or tradeable emission scheme or other scheme involving economic measures, as referred to in Part 9.3,*
- (f) whether the person concerned is a fit and proper person (as referred to in section 83),*
- (f1) in relation to an activity or work that causes, is likely to cause or has caused water pollution:*
  - (i) the environmental values of water affected by the activity or work, and*
  - (ii) the practical measures that could be taken to restore or maintain those environmental values,*
- (g) in connection with a licence application relating to the control of the carrying out of non-scheduled activities for the purpose of regulating water pollution-whether the applicant is the appropriate person to hold the licence having regard to the role of the applicant in connection with the carrying out of those activities,*
- (h) in connection with a licence application-any documents accompanying the application,*
- (i) in connection with a licence application-any relevant environmental impact statement, or other statement of environmental effects, prepared or obtained by the applicant under the Environmental Planning and Assessment Act 1979,*
- (j) in connection with a licence application-any relevant species impact statement prepared or obtained by the applicant under the Threatened Species Conservation Act 1995 or Part 7A of the Fisheries Management Act 1994,*
- (k) in connection with a licence application, any waste strategy in force under the Waste Avoidance and Resource Recovery Act 2001,*
- (l) in connection with a licence application:*
  - (i) any public submission in relation to the licence application received by the appropriate regulatory authority under this Act, and*

(ii) any public submission that has been made under the *Environmental Planning and Assessment Act 1979*, in connection with the activity to which the licence application relates, and that has been received by the appropriate regulatory authority,

(m) if the appropriate regulatory authority is not the EPA-any guidelines issued by the EPA to the authority relating to the exercise of functions under this Section.

### 4.2.3 Waste Avoidance and Resource Recovery Act 2001

The *Waste Avoidance and Resource Recovery Act 2001* (WARR) provides the legislative framework to manage resource recovery in NSW and under which the Waste Avoidance and Resource Recovery Strategy can be implemented.

The objects of this Act are:

- (a) to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development,
- (b) to ensure that resource management options are considered against a hierarchy of the following order:
  - (i) avoidance of unnecessary resource consumption,
  - (ii) resource recovery (including reuse, reprocessing, recycling and energy recovery),
  - (iii) disposal,
- (c) to provide for the continual reduction in waste generation,
- (d) to minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste,
- (e) to ensure that industry shares with the community the responsibility for reducing and dealing with waste,
- (f) to ensure the efficient funding of waste and resource management planning, programs and service delivery,
- (g) to achieve integrated waste and resource management planning, programs and service delivery on a State-wide basis,
- (h) to assist in the achievement of the objectives of the *Protection of the Environment Operations Act 1997*.

Operation of the Site will be managed in accordance with the principles of the waste hierarchy and in accordance with the WARR act as outlined in Section 14.

### 4.2.4 Heritage Act 1977

Consent is required under Part 4 of the *Heritage Act 1977* (Heritage Act) for development which alters, moves or damages any part of a listed heritage item. An excavation permit is required under section 139 of the Heritage Act to 'damage, despoil, move or alter' a relic.

A search of the Australian Heritage Database on 11 September 2017 identified no heritage items within 500m radius of the Proposal area. St Mary's Railway Station Group is listed under the NSW Heritage Act and Penrith LEP 2010 and is located approximately 650m from the proposal. Penrith LEP 2010 identified heritage items with one of these being within 500m radius of the Proposal area. These items include #282 (train station – 650m from site), #655 (Dunheved Fire Station – 37m from site) and #HCA4 (North St Marys Staff Cottages Conservation Area – 500m from site).

As outlined in Section 11, no impacts to local heritage sites are expected to occur as a result of the proposal.

### 4.2.5 National Parks and Wildlife Act 1974

Under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act), consent is required to destroy, deface or damage an Aboriginal object or Aboriginal place.

No Aboriginal heritage items or places are currently listed on the National, State or Local heritage registers as being present within the Proposal site. A search of the Aboriginal Heritage Information Management System (AHIMS) register on 11 September 2017 identified that while there are no registered Aboriginal sites within the Proposal area or within a 50m buffer of the Proposal site, there is one registered site within 200m of the Proposal.

As outlined in Section 11 no impacts to aboriginal heritage is expected to occur as a result of the Proposal however management and mitigation measures to ensure protection of any un-expected Indigenous heritage finds have been included.

## 4.3 Environmental Planning Instruments

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

*State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) facilitates the effective delivery of Infrastructure across New South Wales. Under the Infrastructure SEPP “Development for the purpose of waste or resource management facilities, other than development referred to in subclause (2), may be carried out by any person with consent on land in a prescribed zone”.

The Proposal is zoned IN1 General Industrial under the Penrith Local Environment Plan 2010 and this meets the definition of "Prescribed zone" under the Infrastructure SEPP.

### 4.3.2 State Environmental Planning Policy (State and Regional Development) 2011

*State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) identifies development that is State Significant Development (SSD) under Section 89C of the EP&A Act. The Proposal does not meet the definition for SSD.

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

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) requires the consent authority to consider whether an industrial proposal is a potentially hazardous or offensive industry that without the implementation of appropriate impact minimisation measures would, or potentially would, pose a significant risk in relation to the locality, to human health, life or property, or to the biophysical environment.

Hazardous industry is limited to industrial developments which after all measures proposed to reduce or minimise its impact have been employed, the industry would still pose a significant risk to the surrounding populace and/or biophysical environment.

The Proposal should not pose any significant risk to the surrounding populace, properties or environment with the implementation of best management practices as well as effective implementation of the OEMP and workplace health and safety management system. Section 16 further addresses hazards in relation to the Proposal.

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

State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55) provides consistent state wide planning and development controls for the remediation of contaminated land. The objective of SEPP 55 is to provide a consistent planning approach to the remediation of contaminated land in New South Wales. Under SEPP 55 where rezoning of land or change of use is proposed, it is necessary to establish if the Proposal is to be undertaken on land which has been declared or found to be contaminated.



Consideration of potential for contamination on the Site was assessed in Section 12.

#### 4.3.5 Penrith Local Environment Plan 2010

The Penrith Local Environmental Plan 2010 (Penrith LEP, 2010) provides development standards for the Penrith LGA which encompasses the Proposal area. The Proposal is located on land zoned IN1 - General Industrial.

Under the Penrith LEP 2010, the site would meet the definition of a resource recovery facility. Resource recovery facility means a building or place used for the recovery of resources from waste, including works or activities such as separating and sorting, processing or treating the waste, composting, temporary storage, transfer or sale of recovered resources, energy generation from gases and water treatment, but not including re-manufacture or disposal of the material by landfill or incineration.

While the Proposal does not meet the definition of any types of development permitted in Zone IN1, it meets the definition of a “prescribed zone” under Infrastructure SEPP 2007. As such, development for the purpose of waste or resource management facilities (such as for this Proposal) may be carried out with consent.

Other relevant items from the Penrith LEP include:

- Penrith LEP 2010 identified heritage items with one of these being within 500m radius of the Proposal area. These items include #282 (train station – 650m from site), #655 (Dunheved Fire Station – 37m from site) and #HCA4 (North St Marys Staff Cottages Conservation Area – 500m from site)
- Two natural resource sensitivity sites are located within 1km of the Proposal.

As outlined in Section 11, no impacts to local heritage sites are expected to occur as a result of the proposal.

#### 4.3.6 Penrith Development Control Plan

The Penrith Development Control Plan 2014 (DCP) has been prepared to support all planning instruments applying to the Penrith LGA, including the Penrith LEP 2010. It represents a consolidation of all previous DCPs which applied to the City so that a single, City-wide DCP applies to the LGA.

Part D, section D4 provides controls and objectives for all industrial land in the Penrith LGA. The relevance of each section to the Proposal is outlined in Table 4.

Table 4 Development Control Plan

Development Control Plan	Relevance to the Proposal
4.1 Precincts	The Proposal is not located within a defined Precinct.
4.2 Building Height	The Proposal does not involve an increase beyond the existing roof height.
4.3 Building Setbacks and Landscape	<p>The Proposal does not involve a change to the existing building setback or result in additional expanses of hardstand or paved areas.</p> <p>A new site office will be located on the eastern boundary with a setback to Plasser Crescent of 11m. Car parking will be provided at the western and southern access gates.</p> <p>A Landscaping Plan (Appendix I) has been prepared. Landscaping will be replanted alongside the western fence line to a width of 1.5m to provide</p>



	screening to Plasser Crescent and reduce the visual impact of Site. Due to operational constraints and to enable safe vehicle movements this is the maximum width of landscaping viable on the site.
4.4 Building Design	<p>The Proposal does not involve a change to the existing building on site.</p> <p>A new site office in matching external finishes to existing building, will be located on the eastern boundary. A schedule of External Finishes and Colours has been prepared for the new site office and submitted with the Development Application.</p> <p>The development cost does not exceed \$1 million.</p> <p>All plant and equipment will be located inside the existing building. The weighbridge and wheel wash will not have any major above ground components. All loading and unloading activities are to be undertaken inside the existing building.</p>
4.5 Storage of Materials and Chemicals	Storage of materials will be in 33m <sup>3</sup> skips. The majority will be stored inside the existing building. Two 33m <sup>3</sup> skips containing steel and wood materials will be stored externally. These will be stored behind the landscaping along the western fence line.
4.6 Accessing and Servicing the Site	<p>Access to the site is via the entrance gate on the western boundary with Plasser Crescent and egress from the site is via the exit gate on the southern boundary with Plasser Crescent. This allows all vehicles to enter and exit the site in a forward direction.</p> <p>Heavy vehicle manoeuvring areas are provided for. Further detail is available in Section 9.</p>
4.7 Fencing	The Proposal does not involve any changes to the existing fencing on the Site.
4.8 Lighting	The Proposal does not involve any changes to the existing lighting on the Site.

### 4.3.7 Other legislation

The following legislation was considered for its relevance to the Proposal as outlined in Table 5.

Table 5 Other legislation relevant to Proposal

Legislation	Relevance to Proposal
Contaminated Land Management (CLM) Act 1997	<p>Section 60 of the CLM Act imposes a duty on landowners to notify the Office of Environment and Heritage (OEH), and potentially investigate and remediate land if contamination is above EPA guideline levels.</p> <p>The site has not been declared under the CLM Act as being significantly contaminated (refer Section 12).</p>

Fisheries Management Act 1994	There are no waterways within the Site and the proposal would not impact upon any nearby waterways.
Native Title (New South Wales) Act 1994	The Proposal does not involve any work on land subject to native title.
Native Vegetation Act 2003	The Proposal does not include any impact upon native vegetation.
Noxious Weeds Act 1993	There are no noxious weeds that have been identified in the Proposal area.
Roads Act 1993	Section 138 of the Roads Act requires consent from the relevant road authority for the carrying out of work in, on or over a public road. The Proposal does not involve any work in, on or over a public road.
Biodiversity Conservation Act 2017 (BC Act)	The Proposal does not include impact upon any threatened species or communities.
Waste Avoidance and Resource Recovery Act 2001	The Proposal and subsequent operation of the facility is in accordance with the principles of the Act.
Water Management Act 2000	The Proposal does not involve any takes of groundwater or harvesting of surface water.

## 4.4 Summary of Licences and Approvals Required

The following licences and approvals will be required for the proposal:

- Environment Protection Licence (EPL) under the POEO Act.

## 5. Consultation

### 5.1 Overview

This section outlines the consultation undertaken in respect to the Proposal, and includes a summary of the community, stakeholder and agency consultation that has been undertaken to date.

### 5.2 Local government Consultation

A pre-development application meeting was held with Penrith City Council on 18<sup>th</sup> May 2016. It requested the following considerations be included in the Development Application. Where relevant to the EIS they have also been addressed as per below:

Issue	Description	Where addressed in EIS
Parking	Ensure parking is provided in accordance with the Penrith DCP	Section 3.3
Fire Systems	Ensure review of fire systems. Upgrade may be required	Annual fire check completed and complying. Additional water suppression system also installed.
Storage	Storage of materials should be inside buildings where possible	Section 3.7
Landscaping	Consider additional landscaping for screening where possible	Section 3.4
Flood Mapping	Review new Penrith City Flood Prone Land Mapping	Chapter 13

Contamination	Ensure SEPP 55 is considered	Section 4.3.4
Stormwater	Ensure waste is prevented from entering stormwater	Chapter 13

## 5.3 State government Consultation

A Preliminary Environmental Assessment (PEA) was submitted to DPE and subsequently provided to relevant agencies to provide feedback for the preparation of the SEARs. DPE considered this feedback and issued the SEARs to MWM on 11th April 2017. Agencies that provided a response to DPE included:

- NSW Environment Protection Agency (EPA)
- Roads and Maritime Services
- WaterNSW.

## 5.4 Community Consultation

A Community Consultation and Stakeholder Engagement Plan was developed to identify key objectives and outcomes of consultation activities with the community, stakeholders and government agencies. Community and stakeholder engagement commenced prior to the preparation of the EIS so that issues could be detailed and considered.

The Community Consultation and Stakeholder Engagement Plan identified key community stakeholders based on:

- Proximity to the Site and proposed haulage routes
- Potential for views of the Proposal
- Potential to be impacted by amenity aspects e.g. odour.

The key community stakeholders were identified as:

- Residents - 250m radius from Site
- Businesses - 250m radius from Site.

A community consultation letter was distributed by letterbox drop on 9<sup>th</sup> June 2017 to all businesses and residences within a radius of 250m from 33 Plasser Crescent. A copy of this letter is provided in Appendix C.

MWM did not receive any correspondence in response to the community consultation letter.

Following this consultation activity, MWM identified operational needs to extend weekday operating hours, as outlined in Section 3.5.2. This extension has not been communicated to the community however it is considered that the public exhibition period for this DA would provide opportunities for community feedback.

# 6. Risk Assessment

## 6.1 Introduction

This section introduces and describes the key environmental risks and provides a comprehensive assessment of these risks related to the Proposal. The key potential environmental impacts have been identified through assessment of the Proposal scope, review of the SEARs issued by DPE, and consultation with relevant government agencies.

The final design of the site was directed by the findings of further environmental assessments through the EIS, to avoid and mitigate impacts where possible ('mitigation by design'). Key issues (sections 7 to 17) were those identified as requiring further detail or specialist assessment and investigation. Some issues require specific site management measures and other issues can be managed by routine industry environmental management measures.

## 6.2 Methodology

Each potential environmental impact was systematically reviewed with reference to the current scope of the Proposal, the findings and recommendations (for management and mitigation measures) from the specialist reports, and other documentation.

Discussion of the existing environmental features and potential environmental impacts related to the Proposal was also undertaken with designers and MWM.

## 7. Air Quality and Odour

### 7.1 Introduction

An Air Quality Impact Assessment (AQIA) was prepared by Todoroski Air Sciences (2017) to assess the potential air quality and odour impacts associated with the construction and operation of the Proposal. The AQIA is provided in Appendix E.

The AQIA was prepared in accordance with the 2016 NSW EPA document *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*.

The AQIA comprises:

- A review of the existing meteorological and air quality environment surrounding the Site
- Dispersion modelling to assess potential air quality impacts
- Assessment of potential air quality impacts and associated mitigation and management measures.

A brief summary of the AQIA is provided below.

### 7.2 Existing Environment

The land use surrounding the Proposal area is industrial, with low density residential and public recreation areas located within 200m radius. The nearest sensitive receptors to the Project are identified as the residences located at 2 Kurrajong Road, North St Marys approximately 140m to the north of the Proposal boundary and 2 Australia Street, St Marys located approximately 190m to the south from the Proposal boundary. St Marys North Public School is located approximately 500m north of the Proposal on Willow Road. Mount Druitt hospital is located approximately 4km to the east of the Proposal. The nearby sensitive receivers are outlined in Figure 8.

The facility received a complaint from a neighbour on 14<sup>th</sup> November 2016 regarding dust caused by operations. Following investigation MWM implemented additional measures to manage dust on the Site including:

- Use of a sweeper vehicle to collect dust within the shed and external hardstand areas
- Installation of a fan extraction system with filter to improve air quality within the shed and reduce dust accumulation
- Closing the door to the sorting floor while waste sorting activities are undertaken
- Covering vehicle loads when transporting material off-site.

MWM responded to the complaint with the issue rectified on 18<sup>th</sup> November 2016. No further complaints have been received since the implementation of these measures.



Source: Todoroski Air Sciences (2017)

Figure 8 Location of sensitive receivers

### 7.2.1 Local air quality

The main sources of air pollutants in the area are local anthropogenic activities such as commercial/industrial activities, motor vehicle exhaust and domestic wood heaters.

Background levels of assessed pollutants at the site were based on nearby NSW OEH air quality monitors at St Marys, Prospect and Richmond (approximately 5km southwest, 13km east-southeast and 15km north-northwest of the Project site, respectively).

As shown in Figure 9, the annual average PM<sub>10</sub> concentrations at St Marys, Richmond and Prospect were below the relevant criterion of 25µg/m<sup>3</sup>. The maximum 24-hour average PM<sub>10</sub> concentrations recorded were found to exceed the NSW EPA 24-hour average goal of 50µg/m<sup>3</sup> during the period reviewed.



Station	Annual average					Maximum 24-hour average				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
St Marys	14.4	16.0	16.7	15.1	16.0	34.3	93.0	45.0	53.0	100.2
Richmond	15.1	17.3	15.4	12.8	15.9	99.2	104.6	40.0	49.3	102.8
Prospect	17.3	19.2	17.6	17.6	18.9	38.7	81.8	44.3	68.7	110.1

Source: Todoroski Air Sciences (2017)

Figure 9 Summary of PM<sub>10</sub> levels from NSW OEH monitoring ( $\mu\text{g}/\text{m}^3$ )

As demonstrated in Figure 10, the annual average PM<sub>2.5</sub> concentrations were consistently above the relevant criterion of  $8\mu\text{g}/\text{m}^3$  at Prospect and below the criterion at Richmond. The monitoring data reviewed indicate that the 24-hour average PM<sub>2.5</sub> exceeded the NSW EPA 24-hour average goal of  $25\mu\text{g}/\text{m}^3$  in 2016 for Richmond, during the 2015 and 2016 year periods for the Prospect site and in 2016 and 2017 at the St Marys site. The Richmond, Prospect and St Marys monitors recorded generally similar PM<sub>2.5</sub> concentrations.

Station	Annual average		Maximum 24-hour average	
	2015	2016	2015	2016
St Marys*	-	-	-	93.2
Richmond	7.8	7.9	24.5	83.4
Prospect	8.2	8.7	29.6	84.9

\*Data available from 15/03/2016

Source: Todoroski Air Sciences (2017)

Figure 10 Summary of PM<sub>2.5</sub> levels from NSW OEH monitoring ( $\mu\text{g}/\text{m}^3$ )

The annual average background air quality levels applied in this assessment are outlined in Figure 11.

Pollutant	Averaging Period	Units	Value
PM <sub>10</sub>	Annual	$\mu\text{g}/\text{m}^3$	15.1
PM <sub>2.5</sub>	Annual	$\mu\text{g}/\text{m}^3$	7.8
TSP	Annual	$\mu\text{g}/\text{m}^3$	54.4
Deposited dust	Annual	$\text{g}/\text{m}^2/\text{month}$	2.4

Source: Todoroski Air Sciences (2017)

Figure 11 Summary of background air quality levels

## 7.3 Impact Assessment

Construction and operational activities to be undertaken on site have the potential to generate fugitive dust emissions. Emissions may be generated from the exhaust associated with the movement of vehicles on the site. The proposal would not result in point source greenhouse gas emissions. As outlined in Section 7.3.3, potential for odour emissions would be low.

### 7.3.1 Methodology

The CALPUFF dispersion model, in conjunction with a CALMET generated meteorological data file, was applied to provide predictions of the ground level concentrations of dust based on the estimated emissions.

Emissions from each activity were represented by a series of volume sources and were included in the CALPUFF model via an hourly varying emission file. As all sources modelled were volume, no buildings were included in the model.

The air quality goals that are relevant to the Proposal are summarised in Table 6 and outlined in the 2005 NSW EPA document *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*.

Table 6 NSW EPA air quality impact assessment criteria

Pollutant	Averaging period	Impact	Criteria
TSP	Annual	Total	90µg/m <sup>3</sup>
PM <sub>10</sub>	Annual	Total	25µg/m <sup>3</sup>
	24 Hour	Total	50µg/m <sup>3</sup>
PM <sub>2.5</sub>	Annual	Total	8µg/m <sup>3</sup>
	24 Hour	Total	25µg/m <sup>3</sup>
Deposited dust	Annual	Incremental	2g/m <sup>2</sup> /month
		Total	4g/m <sup>2</sup> /month

Source: NSW EPA, 2016

µg/m<sup>3</sup> = micrograms per cubic metre

g/m<sup>2</sup>/month = grams per square metre per month

### 7.3.2 Dust

Activities as part of the construction phase of the Proposal may have the potential to generate dust, such as the demolition of existing indoor site office.

The operational activities associated with the Proposal that have the potential to generate dust emissions inside the shed are:

- Loading/unloading of material with excavators and front end loaders
- Sorting activities
- Conveying materials on a rubber conveyor belt
- Screening materials with an over band magnet and ballistic separator.

Additionally, emissions may be generated outside the shed from dust lift-off (windblown dust) from hardstand areas (Figure 12 provides a list of these activities and sources).

Dust emission estimates for the Proposal have been calculated by analysing the various types of dust generating activities taking place and utilising suitable emission factors sourced from both locally developed (NPI 2012 and 2014) and US EPA developed documentation (US EPA 2011). The estimated dust emissions for activities associated with the proposed operation are presented in Figure 12. Detailed calculations of the dust emission estimates are provided in the Appendix E.

The dust emission estimates in Figure 12 have not taken into account the proposed dust mitigation and management measures for the Project. These dust emission estimates can be considered conservative as they would likely to be lower in reality.

Activity	TSP emissions	PM <sub>10</sub> emissions	PM <sub>2.5</sub> emissions
Hauling of waste/materials (paved road)	317	61	15
Unloading of materials from truck	12	6	1
Sorting	25	12	2
Transfer of material to stockpiles	25	12	2
Loading to feeder	25	12	2
Conveying	25	12	2
Screening	375	129	31
Transfer of material to stockpiles	25	12	2
Unload materials to stockpiles	25	12	2
Loading to trucks for export off-site	25	12	2
Hauling material off-site	223	43	10
Wind erosion of the site	298	149	22
<b>Total emissions</b>	<b>1,400</b>	<b>470</b>	<b>92</b>

Source: Todoroski Air Sciences (2017)

Figure 12 Estimated annual dust emission rate for the Project (kg/year)

Figure 13 presents the predicted particulate dispersion modelling results at each of the assessed sensitive receiver locations. The results show minimal incremental effects would arise at the sensitive receiver locations due to the Proposal.

Receptor ID	PM <sub>2.5</sub> (µg/m³)		PM <sub>10</sub> (µg/m³)		TSP (µg/m³)	DD (g/m²/month)
	Incremental impact					
	24-hour average	Annual average	24-hour average	Annual average	Annual average	Annual average
	-	-	-	-	-	2
R1	0.2	<0.1	1.1	0.2	0.6	<0.1
R2	0.4	0.1	1.8	0.3	0.7	<0.1
R3	0.4	0.1	1.7	0.2	0.6	<0.1
R4	0.3	<0.1	1.5	0.2	0.5	<0.1
R5	0.2	<0.1	0.9	0.1	0.3	<0.1
R6	0.1	<0.1	0.6	<0.1	0.1	<0.1
R7	0.3	<0.1	1.2	0.2	0.5	<0.1
R8	0.4	0.1	1.7	0.3	0.8	<0.1
R9	0.5	0.1	2.4	0.4	1.2	0.1
R10	0.3	<0.1	1.2	0.2	0.6	<0.1
R11	0.2	<0.1	0.6	0.1	0.3	<0.1
R12	0.1	<0.1	0.5	0.1	0.2	<0.1
Maximum	0.5	0.1	2.4	0.4	1.2	0.1

Source: Todoroski Air Sciences (2017)

Figure 13 Particulate dispersion modelling results for sensitive receivers - incremental impact

The predicted annual cumulative PM<sub>2.5</sub>, PM<sub>10</sub>, TSP and dust deposition levels based on applying the estimated background levels indicate they would be below the relevant criteria at the assessed sensitive receiver locations.

It is predicted that all assessed air pollutants attributable to the Proposal would be within the applicable assessment criteria at all sensitive receivers at all times, and therefore would not lead to any unacceptable level of environmental harm or impact in the surrounding area. The Proposal is not expected to cause air quality impacts on a regional or global scale.



### 7.3.3 Odour

As the materials accepted by the site are limited to non-putrescible construction waste materials, the potential for odour emissions arising from these materials would be low.

All incoming loads will continue to be checked prior to unloading and processing at the site, with any loads identified to be malodorous to be removed immediately from the site and disposed to an appropriately licenced landfill.

The wood material processed on site would be stored for less than 24 hours and there is little potential for decomposition of the wood material at the site. Hence the potential scope for odour impacts to arise from this material is considered to be small.

Based on the above, it is concluded that the Proposal would be highly unlikely to generate any significant odour emissions or impact and therefore odour has not been considered further in this assessment.

## 7.4 Mitigation Measures

The proposed activities at the Proposal site will generate dust emissions, therefore it is prudent to take reasonable and practicable measures to prevent and minimise excessive generation of dust emissions to the surrounding environment.

To ensure that dust generation during operational activities is managed and the potential for off-site impacts is reduced, appropriate operational and physical mitigation measures (such as pollution control and dust suppression systems) would be utilised.

The proposal would apply appropriate management measures as listed below to ensure any potential air quality impacts generated from the Proposal are minimised:

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
A1	Engines of on-site vehicles and plant switched off when not in use.
A2	Operate existing fan extraction system while existing site office is demolished.
<b>Operational Mitigation Measures</b>	
A3	Engines of on-site vehicles and plant switched off when not in use.
A4	Maintain and service vehicles according to manufacturer's specifications.
A5	Hardstand areas and entrance and exit to be cleaned regularly.
A6	Wheel wash installed at exit point to minimise dirt tracked out.
A7	Maintain practice of covering vehicle loads when transporting material off- site.
A8	Restrict outdoor waste stockpiles to two skips of timber and steel.
A9	Restrict handling and processing activities to within the building.
A10	Continued use of a sweeper vehicle in the sorting area to prevent build-up and limit potential for dust to be tracked off-site by trucks.
A11	Installation of two additional air vents. Operate fan extraction system with filter in the shed during tipping and sorting operations. Replace filters regularly to ensure maximum efficiency.
A12	Closing of the western door to the sorting floor while waste sorting activities are occurring.

## 8. Noise and Vibration

### 8.1 Introduction

A Noise Impact Assessment (NIA) was prepared by Muller Acoustic Consulting (MAC) to assess the potential construction, operational and road traffic noise and vibration impacts associated with the Proposal. The NIA is provided in Appendix F.

The NIA was prepared in accordance with the following policies and guidelines:

- Environment Protection Authority (EPA) 2000, NSW Industrial Noise Policy (INP)
- Department of Environment and Climate Change (DECC) 2009, Interim Construction Noise Guideline (ICNG)
- Department of Environment, Climate Change and Water NSW (DECCW), Road Noise Policy (RNP) 2011.

A summary of the investigations and key findings of the NIA is provided below.

### 8.2 Existing Environment

To represent the dwellings to both the north and south of the Project seven noise catchments have been established. Additionally, nine industrial receivers surrounding the Project have also been included in this assessment. Figure 14 provides a locality plan identifying the position of receivers and monitoring locations in relation to the Proposal.



Figure 14 Locality Plan and Noise Catchment Locations

The MGA (56) coordinates for the nearest affected receivers and distances from the Proposal are summarised in Table 7.

**Table 7 Receivers and MGA(56) Coordinates (distance to centre of Site)**

Ref	Easting	Northing	Approximate Distance to Project Site (m)
NC1	294787	6262156	150
NC2	294733	6262224	200
NC3	294421	6261829	340
NC4	294575	6261840	220
NC5	294670	6261822	190
NC6	294801	6261810	230
I1	294649	6262076	65
I2	294627	6262013	67
I3	294637	6261979	70
I4	294715	6261955	75
I5	294739	6261987	60
I6	294705	6261992	35
I7	294673	6262066	43
I8	294762	6262113	110
I9	294621	6262183	135
AR1	294667	6262182	145

The noise catchment areas shown in Figure 14 were reviewed and found that two key residential receiver catchments, one located to the north of the project site along Kurrajong Road and another to the south on Australia Street were identified as having the potential to be most affected by noise emissions. Noise logging data found that the noise environment was dominated by industrial sources such as from the Main Western Railway, smash repair facilities, factories and traffic from adjacent arterial roads.

To quantify the existing background noise environment of the area, unattended logging was conducted at each key receiver catchment. Ambient noise levels at the logging locations were dominated by road traffic noise and industrial/urban sources.

Attended noise monitoring was also undertaken which identified that L1 was dominated by road traffic and ambient urban noise, sources such as aircraft and birds. For L2, train passbys were dominant with urban hum and local and distant traffic audible. Industrial noise sources including the project site were just audible on occasion, although were generally masked by ambient sources including traffic and train movements.

The measures employed by the current facility to date have been successful as no noise complaints have been received.

## 8.3 Project Specific Noise Criteria

### 8.3.1 Operational Noise Criteria

Operational noise criteria for the proposal were determined in accordance with the Industrial Noise Policy (INP). The Project Specific Noise Levels (PSNLs) are presented in Table 8 and represent the lower end of the intrusive or amenity criteria.

Table 8 Project Specific Noise Criteria, dBA LAeq(15minute) (re 20uPa)

Receiver Location	Period	RBL	Intrusiveness Criteria LAeq(15minute), dBA	Amenity Criterion LAeq(period), dBA	PSNL dBA
L1 (NC1 – NC2)	Day	45	50	60	50
	Evening	42	47	52	47
	Night	37	42	48	42
	Morning Shoulder	41	46	54	46
L2 (NC3 – NC6)	Day	39	44	60	44
	Evening	39	44	50	44
	Night	34	39	45	39
	Morning Shoulder	36	41	53	41
Industrial Receivers (I1 – I9)	When in use	N/A	N/A	70	70
Active Recreation (AR1)	When in use	N/A	N/A	55	60

### 8.3.2 Sleep Disturbance Criteria

Based on the conservative night time rating background level (RBL) of 37dBA from L1, and 34dBA from L2, an L<sub>Amax</sub> sleep disturbance criterion of 52dBA and 49 dBA respectively was adopted for the Proposal in accordance with EPA guidance.

### 8.3.3 Construction Noise Management Levels

Construction noise management levels (NMLs) for the proposal were established in accordance with the Interim Construction Noise Guideline (ICNG) as outlined in Table 9.

Table 9 Construction Noise Management Levels

Location	Period	Rating Level (RBL), LA90 dBA	Background Noise Level LAeq(15minute),	Management
L1 (NC1 – NC2)	Day	45	55	
L2 (NC3 – NC6)	Day	39	49	
Industrial Receivers (I1 – I9)	Day	N/A	75	
Active Recreation (AR1)	Day	N/A	65	

### 8.3.4 Road Traffic Noise Criteria

Road traffic noise criteria for the Proposal were aligned with the NSW EPA's Road Noise Policy (RNP) (2011) and are provided in Table 10. Under the RNP, Kurrajong Road is characterised as 'Freeway/arterial/sub-arterial roads'.

Table 10 Road Traffic Noise Assessment Criteria for Residential Land Uses

Road Category	Type of project/ development	Assessment Criteria dBA	
		Day (7am to 10pm)	Night (10pm to 7am)
Freeway/arterial/sub-arterial road	Existing residences affected by additional traffic on existing freeways/ sub-arterial/roads generated by land use developments	60dBA, LAeq(15hr)	55dBA, LAeq(9hr)

The RNP also provides relative increase criteria for residential land uses (Table 11) and states where existing road traffic noise criteria are already exceeded, any additional increase in total traffic noise level should be limited to 2dB. This is generally accepted as the threshold of perceptibility to a change in noise level. Receivers experiencing increases in total traffic noise levels above those presented in Table 11 as a result of the proposal should be considered for mitigation.

Table 11 Relative Increase Criteria for Residential Land Uses

Road Category	Type of project/ development	Total Traffic Noise Level Increase, dBA	
		Day (7am to 10pm)	Night (10pm to 7am)
Freeway/arterial/sub-arterial Roads and transitways	New road corridor/redevelopment of existing road/land use development with the potential to generate additional traffic on existing road.	Existing traffic LAeq(15hr) +12 dB (external)	Existing traffic LAeq(9hr) +12 dB (external)

## 8.4 Impact Assessment

### 8.4.1 Vibration

The potential for vibration impacts have been qualitatively reviewed for this assessment. The review identifies that vibration impacts from the project site would be negligible.

For industrial receivers, the nearest offset distance to potential vibrating sources is >20m. Historic vibration measurements of tracking plant (excavator/dozers etc) show that the intermittent human comfort of 0.8mm/s (workshops) would be achieved at a distance of 15m. Additionally the nearest residential receiver is greater than 150m from the project site, therefore, vibration impacts are not considered to be an issue for the project and have not been considered further in this assessment.

### 8.4.2 Construction Noise

The NIA adopted a worst-case modelling scenario for the assessment to represent maximum noise emissions during construction activities including installation of the new ballistic and magnetic separators. Indicative sound power levels were adopted to assess construction noise for the proposal. Sound power levels for relevant construction equipment are provided in Table 12. Noise Catchments NC4 and NC5 and Industrial receiver I6 exceeded the standard hours construction NML's as outlined in Table 13.

These exceedances are attributed to the use of the concrete saw/drill which is expected to be used for a maximum of two shifts during modifications to the weighbridge.

**Table 12 Equipment Sound Power Levels – Construction**

Item	LAeq(15min) Sound Power Level	Period of Operation
Forklift (x3)	87	Day Only
Scissor Lift (x2)	95	Day Only
20T Franna crane (x1)	109	Day Only
Hand tools	97	Day Only
Excavator	97	Day Only
Concrete Saw	112	Day Only

**Table 13 Predicted Noise Levels from Construction, dBA LAeq(15min)**

Receiver Reference	Noise Predictions dBA LAeq(15min)	NML dBA LAeq(15min)
NC1	36	55
NC2	35	55
NC3	46	49
NC4	55	49
NC5	57	49
NC6	41	49
I1	53	75



I2	68	75
I3	69	75
I4	68	75
I5	66	75
I6	76	75
I7	59	75
I8	40	75
I9	36	75
AR1	41	65

### 8.4.3 Operational Noise

Brüel and Kjær Predictor Type 7810 (Version 11.10) noise modelling software was used to assess potential noise impacts associated with the project. The model uses relevant noise source data, ground type, shielding such as barriers and/or adjacent buildings and atmospheric information to predict noise levels at the nearest potentially affected receivers.

The assessment modelled a worst-case scenario to assess maximum noise emissions during the operation by assuming that all plant and equipment will operate simultaneously. This represents the worst-case scenario however; it is unlikely that all plant and equipment will operate at any one time during the operation of the Proposal and the results should therefore be considered conservatively high.

The Project is anticipated to generate up to 30 trucks per day (60 movements) with no more than four per hour. Hence, this assessment has adopted 1 truck in a fifteen-minute period which is representative of peak hourly flows assuming trucks would remain on-site for no more than fifteen minutes. Additionally, 20 car movement per day are expected associated with staff arrival and departure.

Noise emission levels used for the purposes of modelling are provided in Table 14.

**Table 14 Equipment Sound Power Levels - Operation**

Item	L <sub>Aeq</sub> (15min) Sound Power Level	Period of Operation
<b>Operational Noise Sources</b>		
Ballistic separator and conveyors	105	Day, Evening, Evening Shoulder and Morning Shoulder
Skid Steer	101	Day, Evening, Evening Shoulder and Morning Shoulder
Loader	97	Day, Evening, Evening Shoulder and Morning Shoulder
Excavator	97	Day, Evening, Evening Shoulder and Morning Shoulder

Delivery Truck	102	Day and Morning Shoulder
Maximum Noise Sources (Sleep Disturbance), L <sub>Amax</sub>		
Impact Noise	102	Night Only

Predicted noise levels at each receiver during calm periods and during noise enhancing meteorological conditions are provided in Table 15. The results of the model indicate that noise emissions from operation of the proposal would comply with the criteria at all privately owned receivers for the worst case operation scenario.

**Table 15 Predicted Operational Noise Levels, dBA LAeq (15mins)**

Receivers	Period	Prediction for Calm	Predictions for Prevailing Wind	Predictions for Inversion	PSNL
NC1	Morning Shoulder	<35	<35	<35	46
	Day	<35	N/A	N/A	50
NC2	Morning Shoulder	<35	<35	<35	46
	Day	<35	N/A	N/A	50
NC3	Morning Shoulder	<35	<35	37	42
	Day	<35	N/A	N/A	44
NC4	Morning Shoulder	39	41	42	42
	Day	39	N/A	N/A	44
NC5	Morning Shoulder	39	41	42	42
	Day	39	N/A	N/A	44
NC6	Morning Shoulder	<35	<35	<35	42
	Day	<35	N/A	N/A	44
Other Receivers					
I1	All – when in use	52	52	52	70
I2	All – when in use	50	50	50	70
I3	All – when in use	52	52	52	70

I4	All – when in use	52	52	52	70
I5	All – when in use	47	47	47	70
I6	All – when in use	56	56	56	70
I7	All – when in use	57	57	57	70
I8	All – when in use	<35	<35	<35	70
I9	All – when in use	<35	<35	36	70
AR1	All – when in use	39	38	40	55

The majority of truck movements to and from the Proposal for delivery or collection would be via Plasser Crescent from the north of the site via Kurrajong Road. For this assessment, the maximum proposed daily vehicles movements associated with the project is 30 hook trucks (60 movements) and 20 light vehicles movements associated with onsite staff. This assessment has assumed that all 80 vehicle movements (heavy and light), travel to site in each assessment period.

The results of the traffic noise calculations are presented in Table 16 for receivers at the nearest offset distance of 15m which is the closest offset distance of residential dwellings situated adjacent to Kurrajong Road. Results demonstrate that existing traffic noise levels are below current road noise criteria, furthermore, project related noise levels would remain below relevant criteria and not increase existing road traffic noise levels by more than 2dBA.

**Table 16 Operational Road Traffic Noise Levels**

Distance to Nearest Receiver (m)	Assessment Criteria	Existing Traffic	Future Project Traffic Noise	Existing + Future Project Combined	Total Change
<b>Day LAeq(15hr), dBA</b>					
15	60	64.7	49.3	64.8	0.1
<b>Night (Morning Shoulder vehicles) LAeq(9hr), dBA</b>					
15	55	58.1	50.8	58.8	0.7

### 8.4.4 Sleep Disturbance

Sleep disturbance noise levels were assessed for the nearest residential receivers using the adopted sound power level of 102dBA, representative of the maximum noise emissions associated with impact noise from deliveries that may occur during the morning shoulder period. Predicted noise levels from L<sub>Amax</sub> events for assessed receivers are presented in Table 17. The results indicate that the sleep disturbance criterion will be satisfied for all assessed receivers.

**Table 17 Predicted Sleep Disturbance Noise Levels, dBA L<sub>Amax</sub>**

Receiver	Predicted L <sub>Amax</sub> noise level events dBA	Sleep Disturbance Criterion L <sub>Amax</sub> dBA
NC1	<40	52
NC2	<40	52
NC3	<40	49
NC4	44	49
NC5	49	49
NC6	<40	49

## 8.5 Mitigation Measures

The proposal would apply appropriate management measures as listed below to ensure any potential noise impacts generated from the Proposal are minimised:

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
N1	<p>Prepare a Noise Management Plan (NMP) to manage noise emissions from the Project. The management plan will be prepared with the purpose of providing a description of the measures to be implemented by the Proposal to mitigate noise impacts and detail noise monitoring requirements associated with site operations, construction or maintenance.</p> <p>In general, the purpose of the NMP is to:</p> <ul style="list-style-type: none"> <li>• provide employees and contractors with a description of their responsibilities regarding the management of noise emissions from site</li> <li>• address any relevant conditions/requirements of consent/approval</li> <li>• describe the methodologies adopted to monitor noise emissions from the site against relevant criteria</li> <li>• provide a mechanism for assessing noise monitoring results against the relevant noise criteria</li> <li>• provide a means for the establishment of best practice management with respect to minimising noise emissions/impacts to the broader community.</li> </ul>
N2	<p>Signage placed at the front entrance advising truck drivers of their requirement to minimise noise both on and off-site.</p>

N3	All plant must be shut down when not in use. Operating plant in a conservative manner. Plants to be started at farthest point from relevant sensitive receivers. Avoidance of noisy plant/machinery working simultaneously where practicable.
<b>Operational Mitigation Measures</b>	
N5	<p>Prepare a Noise Management Plan (NMP) for inclusion in the OEMP to manage noise emissions from the Project.</p> <p>In general, the purpose of the NMP is to:</p> <ul style="list-style-type: none"> <li>• provide employees and contractors with a description of their responsibilities.</li> <li>• regarding the management of noise emissions from site.</li> <li>• address any relevant conditions/requirements of consent/approval.</li> <li>• describe the methodologies adopted to monitor noise emissions from the site against relevant criteria.</li> <li>• provide a mechanism for assessing noise monitoring results against the relevant noise criteria.</li> <li>• provide a means for the establishment of best practice management with respect to minimising noise emissions/impacts to the broader community.</li> </ul>
N6	All plant must be shut down when not in use. Operating plant in a conservative manner. Plants to be started at farthest point from relevant sensitive receivers. Avoidance of noisy plant/machinery working simultaneously where practicable.
N7	Signage placed at the front entrance advising truck drivers of their requirement to minimise noise both on and off-site.

## 9. Traffic and Transport

### 9.1 Introduction

A Traffic Impact Assessment (TIA) was prepared by SECA Solution to assess potential traffic and access impacts from the construction and operation of the proposal on the existing road network, including intersections, public transport, road safety, road network capacity, traffic generation and traffic distribution. The TIA is provided in Appendix G.

The TIA was prepared in accordance with:

- Roads and Maritime Services (RMS) Guide to Traffic Generating Developments, Version 2.2 (October 2002)
- RMS TDT 2013/04, Update Traffic surveys August 2013
- Department of Planning EIS Guidelines, Roads and Related Facilities
- Penrith City Council Development Control Plan.

A summary of the key findings of the TIA is provided below.

## 9.2 Existing Environment

Access to the subject site is via Kurrajong Road and then Plasser Crescent, with the access driveways being located on Plasser Crescent only. Kurrajong Road connects with Glossop Street which connects to the Great Western Highway approximately 500m from the Proposal site. The Great Western Highway provides access to the greater road network allowing for access across the greater Sydney metropolitan area. These include connections to the M7 and the M4 further south of the Great Western Highway. The road network in the immediate vicinity of the Proposal is well developed with existing traffic flows being reasonably high due to the light industrial nature of the locality.

The facility has road frontage to Plasser Crescent which provides a single lane of travel in both directions with kerbside parking to both sides. There are no footpaths provided along its length and it operates under the posted speed limit of 50 km/h. Parking was noted as being in high demand.

Existing vehicle access to the site is available via two separate driveways off Plasser Crescent allowing efficient one-way movements through the site for both trucks and light vehicles. Three parking spaces are located on the northern boundary of the site adjacent to the entrance.

There are no road works occurring within the immediate vicinity of the subject site. There are also no pedestrian footpaths or cycling facilities on the local streets in the vicinity of the subject site. There are however, footpaths to both sides of Glossop Street allowing for pedestrian access locally which would allow for pedestrian access to St Marys Station which is located 650 metres from the Proposal.

Traffic surveys were completed by SECA Solution on 26<sup>th</sup> May 2017 at the 4-way signal controlled intersection of Glossop Street and Kurrajong Road. Based on the data collected during these traffic surveys, the daily traffic flows would be approximately 28,000 vehicles per day on Glossop Street and 6,400 vehicles per day on Kurrajong Road. The surrounding road network currently operates well with no significant delays or congestion at the key intersections including that of Glossop Street and Kurrajong Road.

## 9.3 Impact Assessment

The site is currently approved to operate 7am – 5pm Monday to Friday, 7am – 3pm Saturday, and 10am – 2pm Sunday. There are no operations on public holidays. To maximise operations, MWM proposes extended weekday operating hours of 6am to 11pm Monday to Friday.

The access to the site will remain as per the existing site access points on Plasser Crescent. All vehicles will enter via the access on the north-west corner and exit via the southern driveway and this layout will not be altered.

The existing driveways will be retained with no proposed changes however a wheel wash will be installed at the southern exit. The wheel wash will be configured to suit the site and will not alter access arrangements.

New parking spaces will be provided in the south-east corner of the site allowing for a total of six cars to be parked on site.

The site is not well serviced by public transport and the nature of the development does not support public transport use. No improvements to public transport are considered necessary for the project.

Traffic and access arrangements for the project are satisfactory and there are no traffic or access impediments to the Proposal. The access route has been reviewed based upon impacts for other road users and road safety and the proposed access route can operate in a safe and efficient manner with minimal delays for other road users. Further detail regarding impact of the traffic generated by the Proposal, site distances, intersections and road safety is outlined below.



### 9.3.1 Traffic Generation

The proposal would result in an increase in the number of trucks from 6 to 30 per day.

At peak operations, the maximum throughput could be 4 truck arrivals per hour resulting in a total hourly flow of 8 movements. If running at full capacity between 6am and 6pm the potential total truck movements per day equals 96. Beyond 6 PM, the volume of material and trucks numbers will decrease with a maximum of 5 trucks expected to arrive on site over 5 hours i.e. one per hour typically.

This represents the worst-case scenario and is unlikely to occur unless there was a significant construction site close to the facility which would allow for rapid turn-around in empty and full bins. Therefore, the value of 30 trucks (60 movements) per day is considered appropriate, based upon the current and expected operations.

The facility will still operate over the weekend however it is considered that weekend operations will be much lower with the bulk of activities occurring Monday to Friday. Vehicle movements are controlled directly by MWM to avoid more than one truck arriving on site at any one time and as such no vehicle queues are expected.

As a major road, under the Network Planning guidelines provided by the RTA (now RMS) Glossop Street would be classified as a Class 5U, typically providing undivided carriageways with 4 or more lanes of travel and carry high volumes of traffic including freight, public transport and commercial vehicle travel.

These roads typically have daily traffic volumes in the order of 37,000 vehicles per day. As such, it is considered that the additional 24 trucks per day associated with the expansion of the existing facility will have a minimal impact upon the overall operation of this road.

There will be minimal construction traffic generated as all of the equipment will be prefabricated and 'installed' rather than 'built'.

### 9.3.2 Site Distances

Site distances for entry and exit to the site and surrounding road network are satisfactory as outlined in Table 18.

Table 18 Site Distances - Key Intersections

Intersection Location	Summary of site distances
Entrance to the site (off Plasser Crescent)	The entrance is located on a straight section of Plasser Crescent. Drivers can observe the entry driveway on the approach and no vehicles exit this point.
Exit from the site (onto Plasser Crescent)	<p>The exit on to Plasser Crescent is located close to a 90-degree bend which significantly reduces vehicle speeds (below the posted speed limit of 50 km/h). Drivers exiting the site at this location can see a distance of approximately 35 metres for a vehicle approaching from the west of the site exit point. From AS2890 this distance equates to a speed of 40 km/h which is considered appropriate in this location as vehicle speeds in this location are low.</p> <p>This section of the road has several vehicles parked on it which can impact on sight lines. However, the trucks have a raised seating position which allow the driver to see over the top of parked cars.</p>
Access to surround road network (Plasser Crescent and Kurrajong Road)	Trucks associated with the development generally turn right out of the site and travel along Plasser Crescent to then turn left onto Kurrajong Road. This intersection is well laid out and offers good visibility for drivers using this intersection.

### 9.3.3 Impact on Intersections

The key intersection with the potential to be impacted by the Proposal is the signal controlled intersection at Glossop Street and Kurrajong Road. The operation of the intersection has been assessed with SIDRA to confirm the current operation and the potential impact of the additional movements. The SIDRA assessment found the current operation to be very good with no significant delays or congestion.

Additional traffic movements associated with the expansion of the facility will have a minimal impact on the operation of this intersection. The current traffic flows through this intersection are in the order of 2600 vehicles in the AM peak and 3282 in the PM peak hour. The additional 8 truck movements per hour associated with the development represent an increase of 0.3% in the AM peak and 0.2% in the PM peak.

It is noted that the Proposal can also schedule trucks to avoid peak hours if necessary.

### 9.3.4 Impact on Road Safety

The additional traffic flows associated with the project will have a low impact upon traffic safety due to the following:

- The site entry point operates in a safe manner and the low traffic speeds in this location ensure that the entry and exit movements can occur safely.
- There have been no recorded incidents associated with the current entry and exit movements.
- Overall the increase in hourly traffic flows is low and will not alter the overall safe operations.
- The intersections in the general locality of the subject site all offer a safe movement for all vehicles and currently cater for trucks associated with the subject site as well as other trucks that access this area.
- The intersection offers good visibility on Kurrajong Road and allows for safe movements.

## 9.4 Mitigation Measures

The proposal would apply appropriate management measures as listed below to ensure any potential traffic impacts generated from the Proposal are minimised.

Ref	Mitigation Measures
<b>Operational Mitigation Measures</b>	
T1	Traffic management plans for operation shall be developed in accordance with Roads and Maritime Guidelines and the Australian Standard AS1742.3.
T2	Access arrangements within the Site will be maintained to ensure one way flow of vehicles.
T3	Site Supervisor will control vehicle arrivals to ensure vehicles are no queuing public roads adjacent the site. A maximum of three vehicles would be on Site at any time.

## 10. Biodiversity

### 10.1 Existing Environment

Desktop searches were undertaken to determine potential risks and identified the following within 10km of the Proposal site:

- A search of the NSW Bionet Atlas completed on 02 December 2016 identified 35 threatened fauna species, 12 threatened flora species and 15 threatened ecological communities
- An EPBC Act Protected Matters search completed on 02 December 2016 identified 48 listed threatened fauna species, 29 listed threatened flora species and 8 listed threatened ecological
- The site is also located 10km from the world heritage listed Blue Mountains National Park.

The Proposal site is within a highly disturbed industrial area. Drainage connecting to South Creek is located approximately 120m from the proposal site within a public recreation zone. Vegetation within and directly surrounding area of creek closest to the Proposal is limited to grasses and reeds.

During a site inspection on 6 December 2016 no native vegetation was identified within the site and vegetation on the site is limited to 5 conifer trees and succulent shrubs planted for landscaping purposes

## 10.2 Impact Assessment

No species of national or local significance were identified within the vicinity of the Proposal or identified on site. The Proposal is therefore not expected to impact on any threatened species of flora or fauna, and there is limited cumulative impact to biodiversity in the area as a result of the Proposal.

Existing vegetation will be maintained onsite for landscaping purposes. Excavation undertaken for the wheel wash will generate approximately 1m<sup>3</sup> of spoil.

An accidental spill of a chemical or hazardous substance during construction or operation could contaminate land and affect onsite vegetation, or impact aquatic communities in South Creek due to contamination runoff.

## 10.3 Mitigation Measures

The proposal would apply appropriate management and mitigation measures as listed below to ensure any potential biodiversity impacts are minimised.

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
B1	Care taken around existing trees during installation of weighbridge and wheel wash. Construction material such as spoil not to be stored near existing trees for any period of time.
<b>Operational Mitigation Measures</b>	
B2	Implement the Landscape Plan (Appendix H) including planting of five varieties of shrubs, ground covers and grasses around the fence line.

## 11. Aboriginal and Non-Indigenous Cultural Heritage

### 11.1 Existing Environment

Desktop searches were undertaken to determine potential risks to Aboriginal and non-indigenous heritage and identified the following:

- No current applications or determinations within Penrith LGA under the National Native Title Register, the Register of Native Title Claims, and Native Title Applications Registration Decisions and Determinations (30 June 2017)
- No Aboriginal heritage items or places are currently listed on the National, State or Local heritage registers as being present within the Proposal site (30 June 2017)
- One (1) Indigenous Land Use Agreement (ILUA) registered within the Penrith LGA, the Gundungurra Area Agreement. The Proposal site is located outside of this ILUA (30 June 2017)
- No registered Aboriginal sites within the Proposal area or within a 50m buffer of the Proposal site under the Aboriginal Heritage Information Management System (AHIMS) register (11 September 2017) however there is one recorded site within 200m of the Proposal
- No non-indigenous heritage items within 500m of the Proposal area under the Australian Heritage Database (11 September 2017)
- St Mary's Railway Station Group is listed under the NSW Heritage Act and Penrith LEP 2010 and is located approximately 650m from the Proposal

- North St Marys Staff Cottages Conservation Area is listed under the Penrith LEP 2010 and is located approximately 500m from the Proposal
- Dunheved Fire Station is listed under the Penrith LEP 2010 and is located approximately 37m from the Site's Southern boundary.

The Proposal site is within a highly disturbed industrial area and contains hardstand across the majority of the site. The proposal is located approximately 120m from drainage connecting to South Creek, a natural waterbody.

During a site inspection on 6 December 2016 no existing or relict structures or items of potential heritage significance were identified on the site.

## 11.2 Impact Assessment

It is unlikely that the Proposal would not impact on any Indigenous or non-indigenous heritage sites for the following reasons:

- There are no known indigenous heritage items within the Proposal area or within 50m radius, however there is one registered site within 200m of the Proposal Site
- No items of non-indigenous heritage significance were identified within the immediate vicinity of the Proposal or identified on site
- The Site has been substantially modified and disturbed by previous development and industrial activities
- The Proposal requires only minor excavation of hardstand which has previously been disturbed and will have likely eliminated any intact evidence of Aboriginal cultural heritage.

## 11.3 Mitigation Measures

The proposal would apply the following mitigation measures for potential impacts to unknown items of Indigenous or non-indigenous cultural heritage.

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
AH1	If suspected Aboriginal objects (such as stone artefacts) or item of heritage are located during construction, works must cease in the affected area and an archaeologist called onsite to assess the finds. If the finds are found to be Aboriginal objects, the OEH must be notified under section 89A of the NPW Act. Appropriate management and avoidance or approvals under a section 90 AHIP should then be sought if Aboriginal objects are to be moved or harmed.
AH2	In the extremely unlikely event that human remains are found, works should immediately cease and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, the OEH may also be contacted at this time to assist in determining appropriate management.

## 12. Soils and Geology

### 12.1 Existing Environment

The Soil Landscapes of Penrith 1:100,000 Sheet report (SCS NSW 1990) indicates that the proposal overlies the Blacktown residual soil landscape. This landscape is characterised by shallow to moderately deep hard setting soils. Soils are moderately reactive, with highly plastic subsoils, low soil fertility and poor drainage. Acid sulfate soils are not expected to be a risk for the site.

The majority of the Proposal site is hardstand with a small landscaped area (1.5m x 35m) containing 5 conifer trees. The site is located within an industrial area and most of the surrounding landscape is hardstand and roads with small landscaped areas.

### 12.2 Impact Assessment

The Proposal may lead to minor disturbance of soil during excavation which has the potential to result in erosion. These impacts are likely to be minimal as the Proposal would require only minor excavation (maximum 0.1m depth) of soil around existing hardstand to install concrete footing and access ramp for the weighbridge, and plumbing and drainage pipes to service the wheel wash (32mm pipe outer diameter).

It is unlikely that the site contains contaminated soil due to previous development and sealing of the site. In the unlikely event that excavated soils are found to be contaminated, appropriate mitigation measures will be employed and it will be transported offsite to an appropriately licenced facility.

### 12.3 Mitigation Measures

The proposal would implement management and mitigation measures to manage potential soil and geology impacts as outlined below.

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
S1	Develop an erosion sediment control plan for construction works. This will include: <ul style="list-style-type: none"> <li>Minimising the areas of excavation at any one time</li> <li>Cover stormwater drains to prevent sediment going off site.</li> </ul>
S2	Limit area of excavation to necessary areas.
S3	To prevent erosion or sediment laden run off- excess soil that cannot be back-filled following minor excavations will be transported offsite to an appropriate and approved facility.
S4	Prepare a spill management procedure within the CEMP to minimise the effects of an accidental spill of a chemical or hazardous substance during operations.
S5	Ensure a 'spill kit' is on site at all times.
S6	In the event that excavated soils are found to be contaminated, it will be transported offsite to an appropriate and approved facility.
<b>Operational Mitigation Measures</b>	
S7	Prepare an Operational Environmental Management Plan (OEMP) that includes: <ul style="list-style-type: none"> <li>Erosion and sediment controls</li> <li>Stormwater and sediment runoff controls</li> <li>Chemical and machinery storage and management</li> <li>Dust controls</li> <li>Spill management.</li> </ul>
S8	Ensure a 'spill kit' is on site at all times.



## 13. Water Management

### 13.1 Existing Environment

The Proposal is located within the Hawkesbury-Nepean catchment approximately 120m south of a drainage line which is connected to South Creek (



Figure 15), and 1km west of Ropes Creek. Following a flood study and updated flood levels for the Little Creek catchment, Penrith Council issued revised Flood Information for the site on 31<sup>st</sup> May 2017. Review of this information has identified that the site is not located on flood prone land.



Figure 15 Drainage line 120m South of Proposal, leading to South creek

The facility does not utilise groundwater resources nor intercept them as part of its operations.

The site uses municipal water for activities including:

- Office building including amenities
- Support a fire sprinkler system in the shed
- Landscaping requirements
- General usage on site.

The existing site generates sewerage and trade waste from amenities. Sewerage and trade waste is connected to the council sewerage system.

Stormwater from the site, including roof rainwater, is directed to a municipal stormwater drainage network. As demonstrated in Appendix H there are three outdoor grated drains/pits which collect roof rainwater and surface run-off – two on the southern side of the shed and one on the western side. All grated drains lead to a pit inside the shed at the northern end. The pit in the shed is covered by a steel plate to limit water and dust entering the pit. This pit leads to a 300mm pipe going north west and into the municipal stormwater network.

Outdoor stormwater pits are covered with grate filters- 3mm plate with 3mm holes to let water through while filtering large particles. In addition to the grate filter, a Grunt non-woven geotextile membrane is used to filter finer materials such as sediment. The geomembrane cover for the stormwater pits are cleaned



weekly as per the current OEMP and site maintenance checklist. Pits are cleaned more regularly if it rains heavily.

## 13.2 Impact Assessment

### 13.2.1 Stormwater

Indoor operational activities associated with the Proposal that have the potential to generate dust emissions and subsequently introduce sediment to stormwater are:

- Loading/unloading of material with excavators and front end loaders
- Sorting activities
- Conveying materials on a rubber conveyor belt
- Screening materials with an over band magnet and ballistic separator.

Outside of the shed dust lift-off from hardstand areas may be generated and has the potential to introduce sediment to stormwater.

Sediment laden stormwater also has the potential to enter into the nearby drainage line connecting to South Creek if dust is tracked onto adjoining access roads.

The following measures are currently undertaken to mitigate dust tracked onto access roads:

- Use of a sweeper vehicle to collect dust within the shed and external hardstand areas
- Installation of a fan extraction system with filter to improve air quality within the shed and reduce dust accumulation.
- Closing the door to the sorting floor while waste sorting activities are undertaken
- Covering vehicle loads when transporting material off- site.

Stormwater is unlikely to be contaminated by sediment as a result of erosion due to the impervious hardstand covering all operational areas. The area of impervious surface will not increase as a result of the Proposal and as such there will not be an increase in stormwater generated on site.

An accidental spill of a chemical or hazardous substance could contaminate stormwater. A spill management procedure is outlined in the OEMP to minimise the potential effects of this risk. There is a 'spill kit' on site in the case of such an event.

Due to the minimal water usage on site and minor nature of the proposed works a detailed site water balance was not considered necessary.

### 13.2.2 Groundwater

The proposal would require only minor excavation of existing hardstand and is not expected to intercept groundwater.

An accidental spill of any hazardous substances during construction or operation would be unlikely to affect groundwater due to the impervious hardstand covering all operational areas.

### 13.2.3 Wastewater

Prior to exiting the site all trucks will be washed to remove dust and litter collected on their tyres therefore the proposal would generate wastewater from the truck wheel wash to be installed.

The truck wheel wash will be a fully contained under-chassis 20-nozzle system with water recycling capability. The system includes a 1,000L tank for wash water retrieval and recycling, topped up using cold water connection from existing municipal water supply. Any overflow water from the system such as from system backwash and cleaning would be drained to the stormwater network and is expected to be minimal. Overflow water is not expected to contain contaminants other than dust washed off the truck wheels.

The wheel wash system is activated by an induction loop sensor installed prior to the wheel wash spray unit to automate the process (with manual emergency override) and reduce the amount of water used. Wash water is collected in a sump and retrieved by the system to the recycling unit via a pump.

### 13.3 Mitigation Measures

A description of the mitigation measures that will be implemented to address potential stormwater and hydrological impacts associated with the Proposal are provided below.

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
W1	Any excavated soil and cut concrete to be covered and bunded during installation of weighbridge and wheelwash.
W2	To prevent erosion or sediment laden run off- excess soil that cannot be back-filled following minor excavations will be transported offsite to an appropriate facility.
<b>Operational Mitigation Measures</b>	
W3	Truck wheel wash on exit to prevent tracking of dust onto access roads.
W4	The wheel wash to include a water recycling system to remove captured pollutants prior to reuse. Pollutants will be disposed to an appropriate location.
W5	In the case of an accidental spill of hazardous materials, the chemical spills procedure in the operational environmental management plan will be adhered to.
W6	Stormwater pits maintained and cleaned weekly as per the site maintenance checklist. Pits are cleaned more regularly if it rains heavily.
W7	A skid steer loader with sweeper is to be used and maintained regularly to clean up sediment tracked onto access roads.
W8	Existing extraction fans maintained and additional fans added to prevent dust laden sediment run-off. Filters are replaced as required to ensure optimum functioning.

## 14. Waste Management

### 14.1 Existing Environment

Existing activities on the site that currently generate waste are:

- Plant and vehicle maintenance: used oils, hydraulic and other plant fluids
- Non-recyclable construction waste items removed via the manual screening process
- Domestic waste and recyclables from use and management of the facility by on-site personnel.

## 14.2 Impact Assessment

The Proposal has the potential to generate waste from construction activities and continued operational site use. The activities proposed during the construction and operation of the Proposal that could generate waste include:

- Demolition of existing site office
- Unpacking and install of new plant equipment
- Construction:
  - Minor excavation (cut and fill earthworks)
  - Construction of raised site office
  - Domestic waste from construction workers.
- Operation:
  - Plant and vehicle maintenance: used oils, hydraulic and other plant fluids
  - Non-recyclable construction waste items removed via the manual screening process
  - Domestic waste and recyclables from use and management of the facility by on-site personnel
  - Dust collected by sweeper on hardstand areas.

As such the Proposal is expected to generate the following waste types:

- Excavated soil
- Construction waste
- Domestic waste
- Liquid waste
- Potential contaminated soil (e.g. oil spill)
- Biological waste (sewage)
- Wastewater.

The classification and description of each of the potential waste types generated by the Proposal are summarised in Table 19.

**Table 19 Potential waste generated onsite during excavation, construction and operation**

Waste material and description	Waste classification	Management details
<b>Excavated soil</b> Topsoil, subsoil, rock, gravel and silt	General Solid Waste (non-putrescible)	Excavated material will be reused on site as back-fill material. Any excess soil would need to be tested for contamination and then transported offsite to an appropriately licenced facility.
<b>Construction Waste</b> Concrete, metal, steel, timber, fittings, strapping, plastic wrapping, packaging, electrical and plumbing components.	General Solid Waste (non-putrescible)	The construction of infrastructure will involve predominantly modular/ prefabricated components which are manufactured off site and transported to the site for installation/ assembly. As such, the construction of the Proposal is not expected to generate a significant amount of construction waste.

		All attempts would be made to separate and reuse or recycle building materials.
<b>Domestic Waste</b> Paper, cardboard, aluminium cans, plastics, glass, food waste etc. generated by onsite staff.	General Solid Waste (putrescible and non-putrescible)	The limited general waste generated on-site by staff during construction and operation will be separated into recyclable and non-recyclable components and recycled or disposed of as appropriate.  General waste and recycling bins will be provided in the site office and at other locations around the site where deemed necessary.
<b>Liquid Waste</b> Oil, paint, lubricants, glue etc.	Liquid waste	A limited amount of liquid waste is expected to be generated by the Proposal. Liquid wastes would be stored and disposed at a suitably licenced facility.
<b>Biological Waste (Sewage)</b> On-site staff use of toilets.	Liquid Waste and General Solid Waste (putrescible)	Existing toilets will be used during the Construction phase. Sewerage is connected to Council sewerage network.

Waste generated on site will be limited quantities with the potential impacts from inappropriate handling, storage and disposal including:

- Pollution of land and waterways
- Air pollution
- Amenity.

### 14.3 Mitigation Measures

A description of the measures that would be implemented to mitigate the potential impacts associated with the waste generated as a result of the Proposal are provided below.

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
WM1	Waste generated as part of construction activities disposed of into correct bins in accordance with the waste hierarchy.
WM2	Keep records of transport and disposal of wastes (including waste that possesses hazardous characteristics) to ensure that any waste leaving the site is transported and disposed of lawfully. All records demonstrating lawful disposal of waste are required to be kept for at least six years.
<b>Operational Mitigation Measures</b>	
WM3	Waste generated from the proposal would be managed in accordance with the principles of the waste hierarchy and stored in accordance with the EPA's Waste Classification Guidelines (EPA, 2014).
WM4	Keep records of transport and disposal of wastes (including waste that possesses hazardous characteristics) to ensure that any waste leaving the site is transported and disposed of lawfully. All records demonstrating lawful disposal of waste are required to be kept for at least six years.
WM5	Continuously explore opportunities for reducing waste, re-using materials and increasing recycling.



## 15. Visual Amenity

### 15.1 Existing Environment

The visual character of the area around Site is urban, and consists of industrial and commercial buildings. The Site itself is located on a property owned by MWM that has been largely cleared for industrial use.

Other dominant visual features of the area include several local roads, such as Plasser Crescent and Kurrajong Road.

The Proposal is located within a developed industrial area. The closest visual sensitive receivers are a residence approximately 140m north east of the Site and a residence 170m south of the Site.

### 15.2 Impact Assessment

A large proportion of the proposed upgrades are located within the enclosed section of the Facility. External upgrades are minor and include a weighbridge to be installed on the western side of the site which will be visible from the site boundary, and a wheelwash on the southern exit point. An elevated site office will be installed on the southern side of the site over a parking area. Two skip bins will be stored outside the facility during operations.

There is an absence of nearby sensitive receivers with a line of sight to the Proposal. The Proposal is also keeping with the commercial and industrial character of the overall area and is therefore unlikely to result in significant visual amenity impacts for nearby residents or from public vantage points.

### 15.3 Mitigation Measures

The following mitigation measures will be implemented during construction and operations to minimise visual impacts:

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
V1	The site office will be finished in the same materials and finishes as the existing shed.
V2	Any required lighting will be directed downwards in accordance with the Australian Standard AS4282 – Control of Obtrusive Effects of Outdoor Lighting (1997).
V3	Landscaping planting will be provided in scale with the height and bulk of the building.
<b>Operational Mitigation Measures</b>	
V4	Temporary storage of waste materials outdoors is limited to two skip bins.
V5	Implement the Landscape Plan (Appendix H) including planting of five varieties of shrubs, ground covers and grasses around the fence line.

## 16. Hazards and Risks

### 16.1 Introduction

This section assesses the potential impacts of the Proposal in relation to hazard and risk such as fire and emergency management, hazardous and chemical substances including spills, leaks and potential pollution risks. This section also assesses whether the Proposal is a potentially hazardous or offensive industry in accordance with the State Environmental Planning Policy No. 33 — Hazardous and Offensive Development (SEPP 33).

## 16.2 Existing Environment

The majority of the Proposal site is hardstand with small landscaped areas. The site is located within an industrial area and the majority of the surrounding landscape is hardstand and roads with small landscaped areas.

This Site is not located on Bushfire Prone Land identified by the NSW Rural Fire Service bush fire prone land mapping tool (accessed on 22/08/2017) or in a Flood Planning Area under the Penrith Local Environmental Plan 2010 (Flood planning land map – sheet FLD\_019).

The proposal would include:

- Storage of dangerous goods during construction and operation
- Transport of construction waste material to and from the site during operation
- Storage and processing of construction material during operation.

## 16.3 Impact Assessment

### 16.3.1 Hazardous and Chemical Substances

Construction and operation of the proposal would require use of hazardous and chemical substances such as fuel, oil and other chemicals. If not used, handled or stored correctly, chemicals can present a risk to workers' safety and the environment (e.g. spill and leaks). The impact of hazardous and chemical substance use on the site will be minimised through a range of mitigation measures outlined below.

Fuel spills could potentially occur where vehicles and plant are refuelled. The extent of a spill would be restricted by appropriate bunding. Fuel spills could also increase the risk of a fire by providing combustible fuel.

### 16.3.2 Fire Management

The risk of fire on site is not significant due to the nature of the waste materials being processed at the facility. However, plant and equipment must be regularly and adequately maintained to decrease the risk of an operational fire from spills or leaks. Mitigation measures to reduce the risk of operational fires are outlined below.

### 16.3.3 SEPP 33

SEPP 33 seeks to identify and assess where a proposed development for the purpose of industry or storage is potentially hazardous or offensive. A development is considered potentially hazardous and requires a Preliminary Hazard Analysis (PHA) if the storage or transport of hazardous materials exceeds specific screening thresholds outlined in SEPP 33. In accordance with SEPP 33 a preliminary risk screening has been completed for the Proposal to determine whether a PHA is required to support the development application (DA).

A development is considered potentially offensive if the development requires a pollution control licence (e.g. EPL). If the licence conditions could not be met, the proposed development would be considered offensive.

#### *Preliminary Risk Screening*

A Preliminary Risk Screening has been completed in accordance with SEPP 33 and Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (Applying SEPP 33) (DoP 2011).

To determine if the Proposal is potentially hazardous, the following information was collated:

- A list of all the hazardous materials used in the proposed development and the quantity of each
- The dangerous goods classification for each material
- The mode of storage used
- The distance of the stored material from the site boundary for any of the materials in dangerous goods classes 1.1, 2.1 and 3
- The average number of annual and weekly road movements of hazardous material to and from the facility, and the typical quantity in each load.

**Table 20 Materials transported to/from and/or stored on site**

Product	Quantities	Dangerous Goods Classification
Construction Waste	30,000 tpa at capacity	Not applicable
Oils and lubricants	Only household quantities will be stored on site for minor general maintenance of plant and equipment	Class 3 Flammable Liquid
Wastewater for offsite disposal	Not applicable	Not applicable
Pesticides and Herbicides	Only household quantities will be stored on site for minor general maintenance of landscaping areas	Not applicable

No hazardous wastes will be accepted onto the site. Due to the nature of incoming material (construction waste of new project homes) at no time is asbestos to be received, stored or processed as part of the development. In the case where there is an unexpected discovery of asbestos, MWM will implement Section 5.6.2 of the OEMP. Due to the nature of the operations i.e. only accepting new construction waste there has been no reported incidences of asbestos found in loads at the time of writing this EIS. Only household quantities of cleaning agents, oils and lubricants will be stored within the office or equipment shed for use by staff.

Figure 2 shows the Site relative to local features, major roads and sensitive receivers. The facility is approximately 140m from a low density residential area and 130m from a public recreation zone. The volume of flammable liquids (e.g. oils, lubricants) to be stored on site is less than the risk screening thresholds in the SEPP. Based on the above, the Proposal does not meet the definition of a potentially hazardous industry and does not require a PHA.

The Proposal has been determined to be a scheduled activity under the POEO Act (Schedule 1, Clause 34 and Clause 42) and will require an EPL prior to operation and is therefore considered potentially offensive. However, the proposal would operate under and comply with the conditions of the EPL which will provide adequate safeguards to control and prevent any offsite discharges of pollutants (e.g. water, noise or dust). As such the Proposal does not meet the definition of a potentially offensive industry.

## 16.4 Mitigation Measures

The proposal would apply appropriate management measures as listed below to ensure any potential hazards and risk generated from the Proposal are minimised:

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
HR1	Ensure the construction contractor has developed emergency plans such as spill procedures.
<b>Operational Mitigation Measures</b>	
HR2	<p>A Pollution Incident Response Management Plan (PIRMP) is required under the Protection Environment Operations Act (POEO) 1997 within 90 days of obtaining the EPL.</p> <p>The PIRMP will consider:</p> <ul style="list-style-type: none"> <li>• Definition of a Pollution incident</li> <li>• Description and likelihood of hazards</li> <li>• Pre-emptive actions to be taken (e.g. bunded storage of chemicals)</li> <li>• Inventory of pollutants</li> <li>• Safety equipment</li> <li>• Contact details</li> <li>• Communicating with neighbours and the local community</li> <li>• Minimising harm to persons on the premises</li> <li>• Maps – location of premises, stormwater drains etc.</li> <li>• Actions to be taken during and immediately after the incident</li> <li>• Staff training</li> <li>• Requirements related to transportation of waste</li> <li>• Testing the plan</li> </ul>
HR3	Ensure equipment is maintained according to maintenance programs.
HR4	Fire extinguishers are available on site.
HR5	No smoking is to occur on site.
HR6	A sprinkler system is implemented within the main building.
HR7	Containment of spills and leaks shall be in accordance with EPA's guidelines section 'Bunding and Spill Management' at <a href="http://www.epa.nsw.gov.au/mao/bundingspill.htm">http://www.epa.nsw.gov.au/mao/bundingspill.htm</a> and the most recent versions of the Australian Standards referred to in the Guidelines.
HR8	The hardstand areas are to be maintained to a standard that will allow ongoing, all weather access for emergency service vehicles including urban fire-fighting appliances via the access/ entry points to the Proposal site.

## 17. Socio-Economic Considerations

### 17.1 Existing Environment

The Proposal is located within Penrith City Council, in an industrial zoned area and surrounded by other industrial businesses. The nearest alternate construction waste recovery facilities are the Rock and Dirt Recycling facility approximately 16km north of the facility in South Windsor, the Bingo Recycling Centre approximately 3km north west of the facility in St Mary's, and the Fairfield City Council Recycling Drop off Centre in Wetherill Park approximately 16km south east of the existing facility. Low density residential areas are located north east and south of the site and the nearest residential receivers are approximately 140m north and 170m south of the site.

As of the 30<sup>th</sup> June 2016, Penrith City Council was home to more than 202,000 people. Population growth for the region is on average 1.5% per annum (in comparison to NSW growth rate of 1.3% per annum) (DPE, 2017). In 2011, the unemployment rate in Penrith City Council was 5.5 per cent (id community demographic resources, 2017).

## 17.2 Impact Assessment

The potential adverse social impacts associated with the Proposal relate to the general amenity aspects including visual, noise, air quality, odour and traffic during construction and operation. The potential impacts of these social amenity aspects on sensitive receivers are assessed in detail in Sections 7, 8, 9 and 15 along with a range of management measures proposed to mitigate these potential impacts.

Potential construction impacts could include:

- Impacts on visual amenity due to construction of an external site office, weighbridge, wheel wash and increased traffic movements
- Noise caused by construction plant and tools.

Potential operational impacts could include:

- Additional noise impacts from indoor processing equipment
- Increased traffic to and from the Proposal
- Air quality impacts due to increased dust and traffic.

The Proposal would create social and environmental benefits for the region such as:

- Diverting waste from landfill
- Reducing demand on limited landfill space
- Employment of up to five additional staff
- Use of local products and services during construction phase
- Investment in local business.

## 17.3 Mitigation Measures

Mitigation measures addressing potential social amenity impacts are provided within this EIS. Provided that the recommended safeguards are implemented, the social impacts of the Proposal are considered to be acceptable.

Additional mitigation measures to address potential socio-economic impacts include:

Ref	Mitigation Measures
<b>Construction Mitigation Measures</b>	
SE1	A complaint handling procedure and register will be implemented to assist in recording and managing potential conflict with the local community during the construction phase.
<b>Operational Mitigation Measures</b>	
SE2	The existing complaint handling procedure and register will continue to be implemented to assist in recording and managing potential conflict with the local community during operations.

## 18. Cumulative impacts

### 18.1 Existing Environment

Clause 228 of the EP&A Regulation 2000 requires the consideration of cumulative environmental impacts in the context of existing and proposed developments that will occur within a similar location and timeframe to the Proposal to ensure that potential impacts are not considered in isolation. Identifying potential cumulative impact assists in developing appropriate environmental management measures and provides a basis for coordinated planning and environmental monitoring. This section focuses on identifying cumulative impacts where these impacts could potentially be significant.

A review of the Department of Planning and Environments' Major Projects Register, the Urban Growth NSW website and Penrith City Councils' development application register was undertaken on 13 September 2017. Projects that are expected to be undertaken within 3km of the Proposal are listed in Table 21.

**Table 21 Proposed developments within proximity of the Proposal**

Proposed Development	Proposed Timing	Potential Cumulative Impacts
The Proposal is for the extension of an existing Resource Recovery Facility (RRF) located at 25 Dunheved Circuit to the neighbouring property; 21 Dunheved Circuit (approximately 3km from the Site). The proposed RRF would extend across 21 and 25 Dunheved Circuit (the Proposal site) and would facilitate a throughput of 350,000 tonnes per annum of general solid waste (non-putrescible).	Project is currently on public exhibition and opportunity for public submissions is available.	<p>The key impacts associated with waste management facilities is noise, odour and traffic.</p> <p>A review of the EIS for the Project showed that the transport routes used by the proposed facility will not intersect the transport routes used by MWM other than the Great Western Highway.</p> <p>In terms of noise, the projects EIS stated that "construction and operation noise emissions from the Proposal site are anticipated to fully comply with the relevant Industrial Noise Policy-derived project-specific noise levels at all residential receivers. The road traffic associated with the Proposal is not anticipated to exceed the cumulative noise criteria at any surrounding receiver". Given that this project is approximately 3km away from the MWM site, cumulative noise impacts are expected to be negligible.</p> <p>Odour was not classified as a key impact for the project due to not processing putrescible waste and therefore was not assessed as part of the EIS. It is therefore concluded that these two facilities would not have a significant cumulative impact.</p>
The development includes the redevelopment of 12.1 hectares of general industrial zoned land located at Forrester Rd, St Mary's (approximately 2km from the Site) for use as the Western	PEA submitted and SEARs issued	The Western Sydney Inland Container Terminal Facility is in a planning phase at the time of assessment, no detailed assessment data is available for the proposed container terminal facility. Further impacts associated with the Western Sydney Inland Container Terminal



<p>Sydney Inland Container Terminal.</p> <p>The development would form an important port link to move containers to and from Port Botany, resulting in more freight by rail and relieving regional and local road network of container traffic.</p>		<p>Facility will need to be considered as part of the EIS preparation for that project, and should consider relevant impacts from the Proposal site. However, it is noted that the facility will result in moving freight by rail rather than using the local road network and therefore it is unlikely that traffic will have an impact on traffic operations at MWM.</p>
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## 19. Management and Mitigation Measures

### 19.1 Introduction

Throughout this EIS, a number of management and mitigation measures have been identified in order to minimise adverse environmental, social and economic impacts that could potentially arise from the Proposal.

Overall, the environmental risks presented by the Proposal are not significant. A number of features of the Proposal contribute to this assessment, including:

- The proximity to the nearest residential and other sensitive receptors
- The Site's proximity to an established road network (The Great Western Highway).

The Proposal is in keeping with the commercial and industrial character of the overall area. Where the analysis identifies potential environmental impacts, it concludes that these can be adequately managed through the incorporation of mitigation and management measures into the implementation of the Proposal during its construction and operation. The identified management and mitigation measures will be incorporated into contractual arrangements with future contractors for construction and operation of the Proposal.

### 19.2 Consolidated Summary of Management and Mitigation Measures

Management and mitigation measures outlined in this document would be incorporated into the construction and operation of the Proposal. These management and mitigation measures would minimise any potential adverse impacts arising from the Proposal on the surrounding environment. The management and mitigation measures for construction and operation of the proposal are summarised in Table 22 and Table 23.

**Table 22 Summary of Construction Management and Mitigation Measures**

Mitigation Measure Reference	Description
<b>Air Quality</b>	
A1	Engines of on-site vehicles and plant switched off when not in use.
A2	Operate existing fan extraction system while existing site office is demolished.
<b>Noise</b>	
N1	Prepare a Noise Management Plan (NMP) to manage noise emissions from the Project.

	<p>The management plan will be prepared with the purpose of providing a description of the measures to be implemented by the Proposal to mitigate noise impacts and detail noise monitoring requirements associated with site operations, construction or maintenance.</p> <p>In general, the purpose of the NMP is to:</p> <ul style="list-style-type: none"> <li>• provide the WMF employees and contractors with a description of their responsibilities.</li> <li>• regarding the management of noise emissions from site.</li> <li>• address any relevant conditions/requirements of consent/approval.</li> <li>• describe the methodologies adopted to monitor noise emissions from the site against relevant criteria.</li> <li>• provide a mechanism for assessing noise monitoring results against the relevant noise criteria.</li> <li>• provide a means for the establishment of best practice management with respect to minimising noise emissions/impacts to the broader community.</li> </ul>
N2	Signage placed at the front entrance advising truck drivers of their requirement to minimise noise both on and off-site.
N3	All plant must be shut down when not in use. Operating plant in a conservative manner. Plants to be started at farthest point from relevant sensitive receivers. Avoidance of noisy plant/machinery working simultaneously where practicable.
<b>Biodiversity</b>	
B1	Care taken around existing trees during installation of weighbridge and wheel wash. Construction material such as spoil not to be stored near existing trees for any period of time.
<b>Aboriginal and non-indigenous heritage</b>	
AH1	If suspected Aboriginal objects (such as stone artefacts) or item of heritage are located during construction, works must cease in the affected area and an archaeologist called onsite to assess the finds. If the finds are found to be Aboriginal objects, the OEHL must be notified under section 89A of the NPW Act. Appropriate management and avoidance or approvals under a section 90 AHIP should then be sought if Aboriginal objects are to be moved or harmed.
AH2	In the extremely unlikely event that human remains are found, works should immediately cease and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, the OEHL may also be contacted at this time to assist in determining appropriate management.
<b>Soils and Geology</b>	
S1	<p>Develop an erosion sediment control plan for construction works. This will include:</p> <ul style="list-style-type: none"> <li>• Minimising the areas of excavation at any one time.</li> <li>• Cover stormwater drains to prevent sediment going off site.</li> </ul>
S2	Limit area of excavation to necessary areas.
S3	To prevent erosion or sediment laden run off- excess soil that cannot be back-filled following minor excavations will be transported offsite to an appropriate and approved facility.

S4	Prepare a spill management procedure within the CEMP to minimise the effects of an accidental spill of a chemical or hazardous substance during operations.
S5	Ensure a 'spill kit' is on site at all times.
S6	In the event that excavated soils are found to be contaminated, it will be transported offsite to an appropriate and approved facility.
<b>Water management</b>	
W1	Any excavated soil and cut concrete to be covered and bunded during installation of weighbridge and wheelwash.
W2	To prevent erosion or sediment laden run off- excess soil that cannot be back-filled following minor excavations will be transported offsite to an appropriate facility.
<b>Waste management</b>	
WM1	Waste generated as part of construction activities disposed of into correct bins in accordance with the waste hierarchy.
WM2	Keep records of transport and disposal of wastes (including waste that possesses hazardous characteristics) to ensure that any waste leaving the site is transported and disposed of lawfully. All records demonstrating lawful disposal of waste are required to be kept for at least six years.
<b>Visual amenity</b>	
V1	The site office will be finished in the same materials and finishes as the existing shed.
V2	Any required lighting will be directed downwards in accordance with the Australian Standard AS4282 – Control of Obtrusive Effects of Outdoor Lighting (1997).
V3	Landscaping planting will be provided in scale with the height and bulk of the building.
<b>Hazards and risk</b>	
HR1	Ensure the construction contractor has developed emergency plans such as spill procedures.
<b>Socio-Economic</b>	
SE1	A complaint handling procedure and register will be implemented to assist in recording and managing potential conflict with the local community during the construction phase.

**Table 23 Summary of Operational Management and Mitigation Measures**

Mitigation Reference	Measure	Description
<b>Air Quality</b>		
A3		Engines of on-site vehicles and plant switched off when not in use.
A4		Maintain and service vehicles according to manufacturer's specifications.
A5		Hardstand areas and entrance and exit to be cleaned regularly.
A6		Wheel wash at exit point to minimise dirt tracked out.

A7	Maintain practice of covering vehicle loads when transporting material off- site.
A8	Restrict outdoor waste stockpiles to two skips.
A9	Restrict handling and processing activities to within the building.
A10	Continued use of a sweeper vehicle in the sorting area to prevent build-up and limit potential for dust to be tracked off-site by trucks.
A11	Installation of two additional air vents. Operate fan extraction system with filter in the shed during tipping and sorting operations. Replace filters regularly to ensure maximum efficiency.
A12	Closing of the western door to the sorting floor while waste sorting activities are occurring.
<b>Noise</b>	
N5	<p>Prepare a Noise Management Plan (NMP) to manage noise emissions from the Project.</p> <p>In general, the purpose of the NMP is to:</p> <ul style="list-style-type: none"> <li>• provide the WMF employees and contractors with a description of their responsibilities.</li> <li>• regarding the management of noise emissions from site.</li> <li>• address any relevant conditions/requirements of consent/approval.</li> <li>• describe the methodologies adopted to monitor noise emissions from the site against relevant criteria.</li> <li>• provide a mechanism for assessing noise monitoring results against the relevant noise criteria.</li> <li>• provide a means for the establishment of best practice management with respect to minimising noise emissions/impacts to the broader community.</li> </ul>
N6	All plant must be shut down when not in use. Operating plant in a conservative manner. Plants to be started at farthest point from relevant sensitive receivers. Avoidance of noisy plant/machinery working simultaneously where practicable.
N7	Signage placed at the front entrance advising truck drivers of their requirement to minimise noise both on and off-site.
<b>Traffic</b>	
T1	Traffic management plans for operation shall be developed in accordance with Roads and Maritime Guidelines and the Australian Standard AS1742.3.
T2	Access arrangements will be maintained to ensure one way flow of vehicles.
T3	Site Supervisor will control vehicle arrivals to ensure vehicles are no queuing public roads adjacent the site. A maximum of three vehicles would be on Site at any time.
<b>Biodiversity</b>	
B2	Implement the Landscape Plan (Appendix H) including planting of five varieties of shrubs, ground covers and grasses around the fence line.
<b>Soils and Geology</b>	
S7	<p>Prepare an Operational Environmental Management Plan (OEMP) that includes:</p> <ul style="list-style-type: none"> <li>• Erosion and sediment controls</li> </ul>

	<ul style="list-style-type: none"> <li>• Stormwater and sediment runoff controls</li> <li>• Chemical and machinery storage and management</li> <li>• Dust controls</li> <li>• Spill management.</li> </ul>
S8	Ensure a 'spill kit' is on site at all times.
<b>Water management</b>	
W3	Truck wheel wash on exit to prevent tracking of dust onto access roads.
W4	The wheel wash to include a water recycling system to remove captured pollutants prior to reuse. Pollutants will be disposed to an appropriate location.
W5	In the case of an accidental spill of hazardous materials, the chemical spills procedure in the operational environmental management plan will be adhered to.
W6	Stormwater pits maintained and cleaned weekly as per the site maintenance checklist. Pits are cleaned more regularly if it rains heavily.
W7	A skid steer loader with sweeper is to be used and maintained regularly to clean up sediment tracked onto access roads.
W8	Existing extraction fans maintained and additional fans added to prevent dust laden sediment run-off. Filters are replaced as required to ensure optimum functioning.
<b>Waste management</b>	
WM3	Waste generated from the proposal would be managed in accordance with the principles of the waste hierarchy and stored in accordance with the EPA's Waste Classification Guidelines (EPA, 2014).
WM4	Keep records of transport and disposal of wastes (including waste that possesses hazardous characteristics) to ensure that any waste leaving the site is transported and disposed of lawfully. All records demonstrating lawful disposal of waste are required to be kept for at least six years.
WM5	Continuously explore opportunities for reducing waste, re-using materials and increasing recycling.
<b>Visual amenity</b>	
V4	Temporary storage of waste materials outdoors is limited to two skip bins.
V5	Implement the Landscape Plan (Appendix H) including planting of five varieties of shrubs, ground covers and grasses around the fence line.
<b>Hazards and risk</b>	
HR2	<p>A PIRMP is required under the Protection Environment Operations Act (POEO) 1997 within 90 days of obtaining the EPL.</p> <p>The PIRMP will consider:</p> <ul style="list-style-type: none"> <li>• Definition of a Pollution incident</li> <li>• Description and likelihood of hazards</li> <li>• Pre-emptive actions to be taken (e.g. bunded storage of chemicals)</li> <li>• Inventory of pollutants</li> <li>• Safety equipment</li> <li>• Contact details</li> </ul>

	<ul style="list-style-type: none"> <li>• Communicating with neighbours and the local community</li> <li>• Minimising harm to persons on the premises</li> <li>• Maps – location of premises, stormwater drains etc.</li> <li>• Actions to be taken during and immediately after the incident</li> <li>• Staff training</li> <li>• Requirements related to transportation of waste</li> </ul> <p>Testing the plan</p>
HR3	Ensure equipment is maintained according to maintenance programs.
HR4	Fire extinguishers are available on site.
HR5	No smoking is to occur on site.
HR6	A sprinkler system is implemented within the main building.
HR7	Containment of spills and leaks shall be in accordance with EPA's guidelines section 'Bunding and Spill Management' at <a href="http://www.epa.nsw.gov.au/mao/bundinqspill.htm">http://www.epa.nsw.gov.au/mao/bundinqspill.htm</a> and the most recent versions of the Australian Standards referred to in the Guidelines.
HR8	The hardstand areas are to be maintained to a standard that will allow ongoing, all weather access for emergency service vehicles including urban fire-fighting appliances via the access/ entry points to the Proposal site.
<b>Socio-Economic</b>	
SE2	A complaint handling procedure and register will be implemented to assist in recording and managing potential conflict with the local community during operations.

## 20. Conclusion

This section provides the justification for the Proposal taking into account its biophysical, social and economic impacts, the suitability of the Site and whether or not the Proposal is in the public interest. The Proposal is also considered in the context of the objectives of the EP&A Act, including the principals of ecologically sustainable development (ESD) as defined in Schedule 2 of the EP&A Regulation 2000.

### 20.1 Justification for the development

The Proposal, identified as a Designated and Integrated Development has been subject to an environmental impact assessment under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act). This EIS has examined and taken into account all matters affecting or likely to affect the environment by reason of the proposed activity.

The EIS that was undertaken concludes that whilst the Proposal would have some impacts on air quality, stormwater and traffic, these impacts are not significant and can be reduced to an acceptable level with the implementation of the appropriate mitigation and management measures identified in Section 18. The Proposal can be constructed and operated without limiting existing or future land uses on or surrounding the Site.

### 20.2 Benefits of the Proposal

The proposal would increase the quantity of construction waste that is recovered from landfill in the rapidly expanding Western Sydney area. This will extend the life of nearby landfill, increase recycling rates and improve the sustainability of waste management in the Western Sydney region.



The construction and operation of the Proposal would generate employment in the region.

## 20.3 Ecologically Sustainable Development

### 20.3.1 The Precautionary Principle

The precautionary principle means that where 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. Implementing the precautionary principle includes:

- Careful evaluation to avoid serious or irreversible damage to the environment wherever practicable
- An assessment of the risk-weighted consequences of various options.

This EIS assesses environmental aspects and impacts associated with the Proposal with the purpose of eliminating (where practicable) and reducing the risk of serious and permanent impacts on the environment.

A number of design elements were assessed during the development of the proposal. These include:

- Raising the roof height to allow for larger vehicle (no longer necessary for proposed traffic path)
- Circular movement path for trucks over weighbridge and into southern entrance (no longer necessary for proposed traffic path)
- Maintaining the current staff office and toilet area (no longer necessary as new equipment can be installed on top or around)
- The “do nothing” option.

The chosen option was preferred due to the already established infrastructure in place, only minor earthworks needed in the design of the facility, environmental controls in place and access to an already established road network within an industrial area.

Specialist studies were undertaken to provide accurate information to assist with the evaluation and development of the Proposal including:

- Air quality and Odour
- Noise and Vibration
- Traffic and Transport
- Landscape Plan.

### 20.3.2 Intergenerational Equity

The intergenerational equity principle recognises that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

The proposal would improve environmental performance of resource recovery in the Western Sydney region, with construction waste sorted for recycling or reuse. The proposal would mean waste is diverted from

landfill, which in turn increases the life of existing landfill cells, reduces greenhouse gas emissions and environmental, water and groundwater impacts from landfill leachate.

The Proposal is consistent with the principles of intergenerational equity.

### 20.3.3 Conservation of Biological Diversity and Ecological Integrity

Ecologically Sustainable Development mandates that the conservation of biological diversity and ecological integrity should be a fundamental consideration in environmental planning and decision-making processes. Biodiversity refers to the variety of all life.

An assessment of the existing local flora and fauna has been undertaken in order to recognise and manage any potential impacts of the Proposal on local biodiversity.

The Site comprises a highly disturbed landscape impacted by current and historical industrial activities. The Site consists of cleared land which has been cleared for industrial purposes. This cleared land is not considered to be consistent with the final determination for any threatened ecological communities under the BC Act or the EPBC Act. Given the extent of disturbance of the ground layer and soil profile, it is unlikely that the cleared land would, under appropriate management, respond to assisted natural regeneration as the soil and associated seed bank are no longer intact.

The assessments concluded that the proposal would not result in a significant impact on any species, populations, or ecologically communities listed under the BC Act or EPBC Act. The Proposal is expected to have negligible adverse impacts on biodiversity.

### 20.3.4 Improved valuation, pricing and incentive mechanisms

This principle requires that environmental factors should be included in the valuation of assets and services in terms of the overall costs to the Proposal.

This EIS assesses the environmental impacts of the Proposal and identifies measures to minimise, prevent and offset possible impacts. Implementation of these mitigation measures would result in an economic cost to MWM.

Implementing the proposed mitigation measures would increase both the capital and operating costs of the Proposal. This indicates that environmental resources have been valued in economic terms during the planning and development phase of this Proposal.

## 21. References

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## Appendix A

### Secretary's Environmental Assessment Requirements

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## Appendix B

### SEARs Cross Reference Table

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## Appendix C

### Letter Box Drop

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## Appendix D

### Preliminary Engineering Designs

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## Appendix E

### Air Quality Impact Assessment

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## Appendix F

### Noise and Vibration Impact Assessment

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## Appendix G

### Traffic and Transport Impact Assessment

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## Appendix H

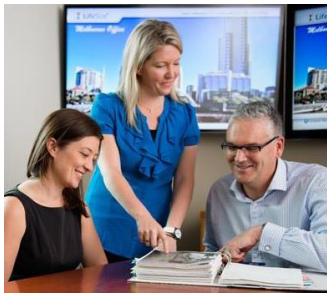
### Landscape Plan

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## Contact

Jessica Berry  
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jberry@pittsh.com.au

transport | community | environment | industrial | food & beverage | energy



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## Appendix A

### Secretary's Environmental Assessment Requirements

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Adam Bishop  
KMH Environmental  
PO Box 5487  
CHATSWOOD WEST NSW 1515

17/04875  
SEAR 1142

Dear Mr Bishop

**Resource Recovery Facility  
33-37 Plasser Crescent, North St. Marys (Lot 16 DP 263353)  
Secretary's Environmental Assessment Requirements (SEAR) 1142**

Thank you for your request for the Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the above development proposal. I have attached a copy of these requirements.

In support of your application, you indicated that your proposal is both designated and integrated development under Part 4 of the *Environmental Planning and Assessment Act 1979* and requires an approval under the *Protection of the Environment Operations Act 1997*.

In preparing the SEARs, the Department has consulted with the Environment Protection Authority and WaterNSW. A copy of their requirements for the EIS are attached. The Department has also consulted with the Roads and Maritime Services as required by Schedule 3 of *State Environmental Planning Policy (Infrastructure) 2007* and attaches its requirements for the EIS.

If other integrated approvals are identified before the Development Application (DA) is lodged, you must undertake direct consultation with the relevant agencies, and address their requirements in the EIS.

If your proposal contains any actions that could have a significant impact on matters of National Environmental Significance, then it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Commonwealth Department of the Environment and Energy on (02) 6274 1111.

Should you have any further enquiries, please contact Max Chipchase, Industry Assessment, at the Department on (02) 9274 6304.

Yours sincerely



Chris Ritchie

Director

Industry Assessments

as delegate of the Secretary

11/4/17.

# Environmental Assessment Requirements

Section 78A (8) of the *Environmental Planning and Assessment Act 1979*.

## Designated Development

<b>SEAR Number</b>	1142
<b>Proposal</b>	Expansion of existing resource recovery facility to process up to 30,000 tonnes per annum of construction and demolition waste comprising steel, timber, cardboard and plastics.
<b>Location</b>	33-37 Plasser Crescent, North St Marys (Lot 16 DP 263353)
<b>Applicant</b>	Maclean's Waste Management
<b>Date of Issue</b>	11 April 2017
<b>General Requirements</b>	The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> .
<b>Key Issues</b>	<p>The EIS must include an assessment of all potential impacts of the proposed development on the existing environment (including cumulative impacts if necessary) and develop appropriate measures to avoid, minimise, mitigate and/or manage these potential impacts. As part of the EIS assessment, the following matters must also be addressed:</p> <ul style="list-style-type: none"> <li>• <b>strategic context</b> – including: <ul style="list-style-type: none"> <li>– a detailed justification for the proposal and suitability of the site for the development;</li> <li>– a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies;</li> <li>– a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out;</li> <li>– a description of how the proposed recycling management centre integrates with the on-site operation; and</li> <li>– a description of any additional license(s) or approval(s) required to carry out the development.</li> </ul> </li> <li>• <b>waste management</b> – including: <ul style="list-style-type: none"> <li>– details of the type, quantity and classification of waste to be received at the site;</li> <li>– details of the resource outputs and any additional processes for residual waste;</li> <li>– details of waste handling including, transport, identification, receipt, stockpiling and quality control;</li> <li>– details of how the EPA's record keeping and reporting requirements will be met; and</li> <li>– the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the <i>NSW Waste Avoidance and Resource Recovery Strategy 2014-21</i>.</li> </ul> </li> <li>• <b>hazards and risk</b> – including: <ul style="list-style-type: none"> <li>– the Environmental Impact Statement must include a preliminary risk screening completed in accordance with <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</i> 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</li> </ul> </li> </ul>

	<p>prepared in accordance with <i>Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis</i> (DoP, 2011) and <i>Multi-Level Risk Assessment</i> (DoP, 2011).</p> <ul style="list-style-type: none"> <li>• <b>air quality</b> – including: <ul style="list-style-type: none"> <li>– a description of all potential sources of air and odour emissions;</li> <li>– an air quality impact assessment in accordance with relevant Environment Protection Authority Guidelines; and</li> <li>– a description and appraisal of air quality impact mitigation and monitoring measures.</li> </ul> </li> <li>• <b>traffic and transport</b> – including: <ul style="list-style-type: none"> <li>– details of road transport routes and access to the site;</li> <li>– road traffic predictions for the development during construction and operation;</li> <li>– an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development;</li> <li>– a Traffic Impact Statement (TIA) in accordance with Roads and Maritime Services Guidelines; and</li> <li>– a transport and traffic study taking into account the cumulative study area traffic impacts associated with the development.</li> </ul> </li> <li>• <b>soil and water</b> – including: <ul style="list-style-type: none"> <li>– a description of local soils, topography, drainage and landscapes;</li> <li>– details of water usage for the proposal including existing and proposed water licencing requirements in accordance with the <i>Water Act 1912</i> and/or the <i>Water Management Act 2000</i>;</li> <li>– an assessment of potential impacts on floodplain and stormwater management and any impact to flooding in the catchment;</li> <li>– a detailed site water balance;</li> <li>– details of the proposed stormwater and wastewater management systems (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts;</li> <li>– an assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts; and</li> <li>– a description and appraisal of impact mitigation and monitoring measures</li> </ul> </li> <li>• <b>noise and vibration</b> – including: <ul style="list-style-type: none"> <li>– a description of all potential noise and vibration sources during construction and operation, including road traffic noise;</li> <li>– a noise and vibration assessment in accordance with the relevant Environment Protection Authority Guidelines; and</li> <li>– a description and appraisal of noise and vibration mitigation and monitoring measures.</li> </ul> </li> <li>• <b>biodiversity</b> – including a description of any potential vegetation clearing needed to undertake the proposal and any impacts to flora and fauna.</li> <li>• <b>heritage</b> – including Aboriginal and non-Aboriginal cultural heritage.</li> </ul>
<b>Environmental Planning Instruments and other policies</b>	<p>The EIS must assess the proposal against the relevant environmental planning instruments, including but not limited to:</p> <ul style="list-style-type: none"> <li>• <i>State Environmental Planning Policy (Infrastructure) 2007</i>;</li> <li>• <i>State Environmental Planning Policy No. 33 Hazardous and Offensive Development</i>;</li> <li>• <i>State Environmental Planning Policy No. 55 Remediation of Land</i>;</li> <li>• <i>Penrith Local Environmental Plan 2010</i>; and</li> <li>• relevant development control plans and section 94 plans.</li> </ul>
<b>Guidelines</b>	<p>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 <a href="http://planning.nsw.gov.au">planning.nsw.gov.au</a> under Development Proposals/Register of Development Assessment Guidelines. 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.</p>

<b>Consultation</b>	<p>During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the:</p> <ul style="list-style-type: none"> <li>• Environment Protection Authority;</li> <li>• Roads and Maritime Services;</li> <li>• WaterNSW;</li> <li>• Penrith City Council; and</li> <li>• the surrounding landowners and occupiers that are likely to be impacted by the proposal.</li> </ul> <p>Details of the consultation carried out and issues raised must be included in the EIS.</p>
<b>Further consultation after 2 years</b>	<p>If you do not lodge an application under Section 78A (8) of the <i>Environmental Planning and Assessment Act 1979</i> within 2 years of the issue date of these SEARs, you must consult with the Secretary in relation to any further requirements for lodgement.</p>



Department of Planning and Environment  
GPO Box 39  
Sydney NSW 2001

Attention: Max Chipchase

Notice Number 1550838  
File Number DOC17/206204  
Date 4 April 2017

Dear Mr Chipchase

**Request for SEARs ID No. 1142 - Proposed Expansion of Waste Management Facility, 33-37 Plasser Crescent, North St Marys (Lot 16 in DP 263353)**

I refer to your request for the Environment Protection Authority's (EPA) requirements for the Secretary's Environmental Assessment Requirements (SEARs) regarding the proposed Expansion of the waste management facility located at 33-37 Plasser Crescent, North St Marys, Lot 16 in DP 263353 (the Premises) to the above proposal received by EPA on 17 March 2017.

The EPA has considered the details of the proposal provided by KMH Environmental on behalf of Macleans Waste Management Pty Ltd and has identified the information it requires to issue its general terms of approval in Attachment A. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

**1. Air quality and Odour**

Detailed assessment of all airborne emissions generated by the increase in vehicle movements, higher volumes of waste being processed and an increase in stockpiled waste and recovered material at the premises. The assessment should cover the following:

- Source points for all dust emissions should be identified and the environmental controls to manage dust;
- Identify all potential airborne emissions and includes but is not limited to coarse particulates, PM10, PM2.5 and odour;
- Details of equipment and plant operating at the Premises that could cause dust and sediment tracking; and
- Details and locations of dust suppression systems at the Premises.

## **2. Noise and Vibration**

Noise and vibration impacts on all receivers for all proposed on site activities must be assessed. The Proponent must demonstrate that noise and vibration levels from operational activities, including during construction and meet the requirements of the relevant EPA guidelines.

## **3. Water Management**

Stormwater and wastewater management during both construction and operation must be included in the EIS. Consideration must be provided for the following:

- potential increase in the load going to stormwater from additional dust suppression activities;
- details of the flow of clean and contaminated water and how it will be diverted around the Premises;
- water storage capacity and water source for dust suppression;
- measures the proponent intends to employ to mitigate any impacts of contaminated and /or sediment laden water reaching stormwater and offsite receptors; and
- controls for increased sediment and mud tracking from vehicles leaving the Premises during wet weather.

## **4. Waste Management**

Waste management processes must be detailed in the EIS and the proposed controls to ensure all waste material will be managed and include;

- details of the types and quantities of waste types received at the Premises;
- details of the maximum volume of waste to be stored at the Premises;
- a description of waste processing procedures;
- details of how the proponent will meet the EPA's record keeping requirements;
- the type and quantity of output materials and their end use;
- details of any materials that will be produced under a Resource Recovery Order and the controls in place for meeting the conditions of that order; and
- a detailed description of procedures for dealing with non-conforming waste.

The EPA requires that all waste storage and processing takes place inside an enclosed building.

## **5. Fire and Emergency management**

Fire risk management and containment as well as emergency plans should be detailed in the EIS in the case of an unforeseen spill or pollution incident occurring.

## **General Information**

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in Attachment B and any relevant industry codes of practice and best practice management guidelines.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage.

The Proponent should be made aware that any commitments made in the SEAR's may be formalised as approval conditions and may also be placed as formal licence conditions.

The Proponent should be made aware that, consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act 1997* ("the Act") the EPA may require the provision of a financial assurance and/or assurances. The amount and form of the assurance(s) would be determined by the EPA and required as a condition of an Environment Protection Licence ("EPL").

In addition, as a requirement of an EPL, the EPA will require the Proponent to prepare, test and implement a Pollution Incident Response Management Plan and/or Plans in accordance with Section 153A of the Act.

Yours sincerely

A handwritten signature in black ink, appearing to be "Lara Barrington".

---

**Lara Barrington**  
**Acting Unit Head**  
**Waste & Resource Recovery**  
(by Delegation)



## **ATTACHMENT A: EIS REQUIREMENTS FOR**

### **Proposed Expansion of Waste Management Facility, 33-37 Plasser Crescent, St Marys**

#### **How to use these requirements**

The EPA requirements have been structured in accordance with the DIPNR EIS Guidelines, as follows. It is suggested that the EIS follow the same structure:

- A. Executive summary
- B. The proposal
- C. The location
- D. Identification and prioritisation of issues
- E. The environmental issues
- F. List of approvals and licences
- G. Compilation of mitigation measures
- H. Justification for the proposal

## **A Executive summary**

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The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

## **B The proposal**

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### **1. Objectives of the proposal**

- The objectives of the proposal should be clearly stated and refer to:
  - a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
  - b) a life cycle approach to the production, use or disposal of products
  - c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
  - d) the staging and timing of the proposal and any plans for future expansion
  - e) the proposal's relationship to any other industry or facility.

### **2. Description of the proposal**

#### ***General***

- Outline the production process including:
  - a) the environmental "mass balance" for the process – quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
  - b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
  - a) measures to minimise waste (typically through addressing source reduction)
  - b) proposals for use or recycling of by-products
  - c) proposed disposal methods for solid and liquid waste
  - d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
  - e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
  - f) soil contamination treatment and prevention systems.
- Outline construction works including:
  - a) actions to address any existing soil contamination

- b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)
- c) construction timetable and staging; hours of construction; proposed construction methods
- d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.
- Include a site diagram showing the site layout and location of environmental controls.

### **Air**

- Identify all sources or potential sources of air emissions from the development.  
*Note: emissions can be classed as either:*
  - point (e.g. emissions from stack or vent) or
  - fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).
- Provide details of the project that are essential for predicting and assessing air impacts including:
  - a) the quantities and physio-chemical parameters (e.g. concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or stored
  - b) an outline of procedures for handling, transport, production and storage
  - c) the management of solid, liquid and gaseous waste streams with potential for significant air impacts.

### **Noise and vibration**

- Identify all noise sources or potential sources from the development (including both construction and operation phases). Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations – diagrams should be to a scale sufficient to delineate individual residential blocks.

### **Water**

- Provide details of the project that are essential for predicting and assessing impacts to waters including:
  - a) the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, including the risks they pose to Water Quality Objectives in the ambient waters (as defined on <http://www.environment.nsw.gov.au/ieo/index.htm>, using technical criteria derived from the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, ANZECC 2000)
  - b) the management of discharges with potential for water impacts
  - c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.

- Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts e.g. effluent ponds) and showing potential areas of modification of contours, drainage etc.
- Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources). Include water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

### **Waste and chemicals**

Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

- Provide details of liquid waste and non-liquid waste management at the facility, including:
  - a) the transportation, assessment and handling of waste arriving at or generated at the site
  - b) any stockpiling of wastes or recovered materials at the site
  - c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site
  - d) the method for disposing of all wastes or recovered materials at the facility
  - e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility
  - f) the proposed controls for managing the environmental impacts of these activities.
- Provide details of spoil disposal with particular attention to:
  - a) the quantity of spoil material likely to be generated
  - b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil
  - c) the need to maximise reuse of spoil material in the construction industry
  - d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material
  - e) designation of transportation routes for transport of spoil.
- Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.
- Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.
- Reference should be made to the guidelines: EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

### **ESD**

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including: