ARCADIS Design & Consultancy for natural and built assets

SSD APPLICATION

83 GINDURRA ROAD, SOMERSBY

10 MARCH 2018

Incorporating Hyder

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BINGO RECYCLING PTY LTD
SSD APPLICATION

83 GINDURRA ROAD, SOMERSBY

SEARs Application Report

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Report No	1	
Date	April 2018	
Revision Text	B	

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APPENDICES

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Glossary

Term	Definition
AHIMS	Aboriginal Heritage Information Management System
BC Act	*Biodiversity Conservation Act 2016*
BOM	Bureau of Meteorology
C&D	Construction & Demolition
C&I	Commercial and Industrial
CLM Act	*Contaminated Land Management Act 1977*
DP&E	Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	*Environment Protection Authority*
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
Gosford LEP	*Gosford Local Environment Plan 2014*
ISEPP	*State Environmental Planning Policy (Infrastructure) 2007*
MNES	Matters of National Environmental Significance
POEO Act	*Protection of the Environment Operations Act 1997*
Proposal site	The area of Lot 11, DP 616412 not occupied by a habitat link
RRF	Resource Recovery Facility
RRR	Resource Recovery Rate
SEARs	Secretary's Environmental Assessment Requirements
SEPPs	State Environmental Planning Policies
SSD	State Significant Development
The Proposal	The project for which approval is being sought
Tpa	Tonnes per annum
WARR Act	*Waste Avoidance and Resource Recovery Act 2001*

1 INTRODUCTION

1.1 Overview

Bingo Recycling Pty Ltd (the Applicant) is looking to establish a Resource Recovery Facility (RRF) at Lot 11, DP 616412, located at 83 Gindurra Road, Somersby (Figure 1) Lot 11 is currently unoccupied and uncleared.

The Applicant is seeking approval to construct and operate a RRF that would process up to 500,000 tonnes per annum (tpa) of waste (the Proposal). Waste would primarily compromise construction and demolition (C&D) waste, commercial and industrial (C&I) waste, green waste, soils and timber waste, sourced from the Greater Sydney Area, primarily from the Central Coast to Newcastle areas.

The Proposal would comprise a fully enclosed processing shed incorporating processing equipment and stockpile, storage and handling areas, loading areas, vehicular access and parking, weighbridges and wheel wash stations, a site office, and associated amenities.

Material would be brought to the facility, processed into recyclables and then sold to the end user for further processing. The residual, non-reusable materials would be transferred to a licensed landfill site or alternative residual waste processing facility.

1.2 Introduction to Bingo Industries

Bingo Industries Limited is an Australian Securities Exchange listed company which employs over 700 staff who manage and operate a fleet of over 200 modern collections and operations vehicles, carrying out thousands of services a day to a diverse set of customers.

The Company's operations include a network of strategically located resource recovery and recycling facilities in NSW and Victoria.

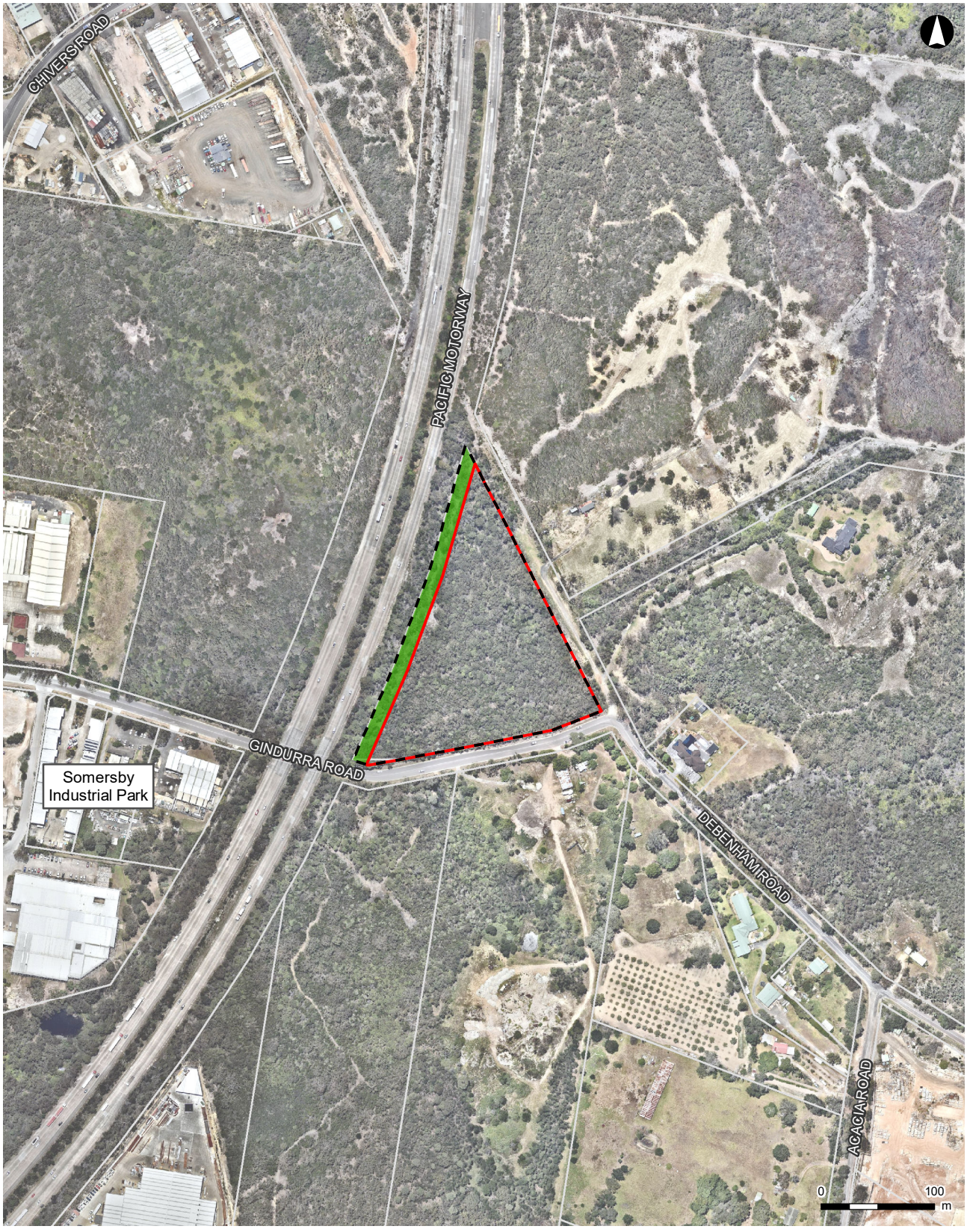
1.3 Site Location

Lot 11, DP 616412 is approximately 3.8 ha in size. However, the Applicant notes that the western part of Lot 11 adjacent to the Pacific Motorway is to be preserved as a habitat link in accordance with the Draft Plan of Management (DPoM) for the Somersby Industrial Park (NSW Premier's Department and Gosford City Council, 2005). As a result, the Proposal site is approximately 2.5 ha in size (Figure 1).

The Proposal site is located within the Somersby Industrial Park, approximately 4km west of Gosford, and approximately 50 km north of the Sydney CBD. The Proposal site is surrounded by other industrial land uses and uncleared nature conservation areas (Figure 2)

The closest residential receivers to the Proposal site are located adjacent to the Proposal site's east southeast boundaries. The next closest residences are located approximately 200 m east of the Proposal site, approximately 400 m southeast of the Proposal site.

Somersby Resource Recovery Facility



LEGEND

- Proposal Site
- Lot 11
- Habitat Link
- Cadastre

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1:5,000 at A4

Aerial imagery supplied by nearmap, December 2017

Coordinate System: GDA 1994 MGA Zone 56
Date issued: March 29, 2018

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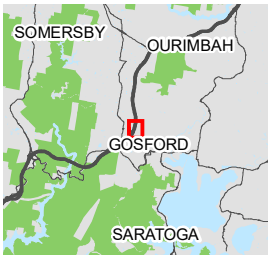
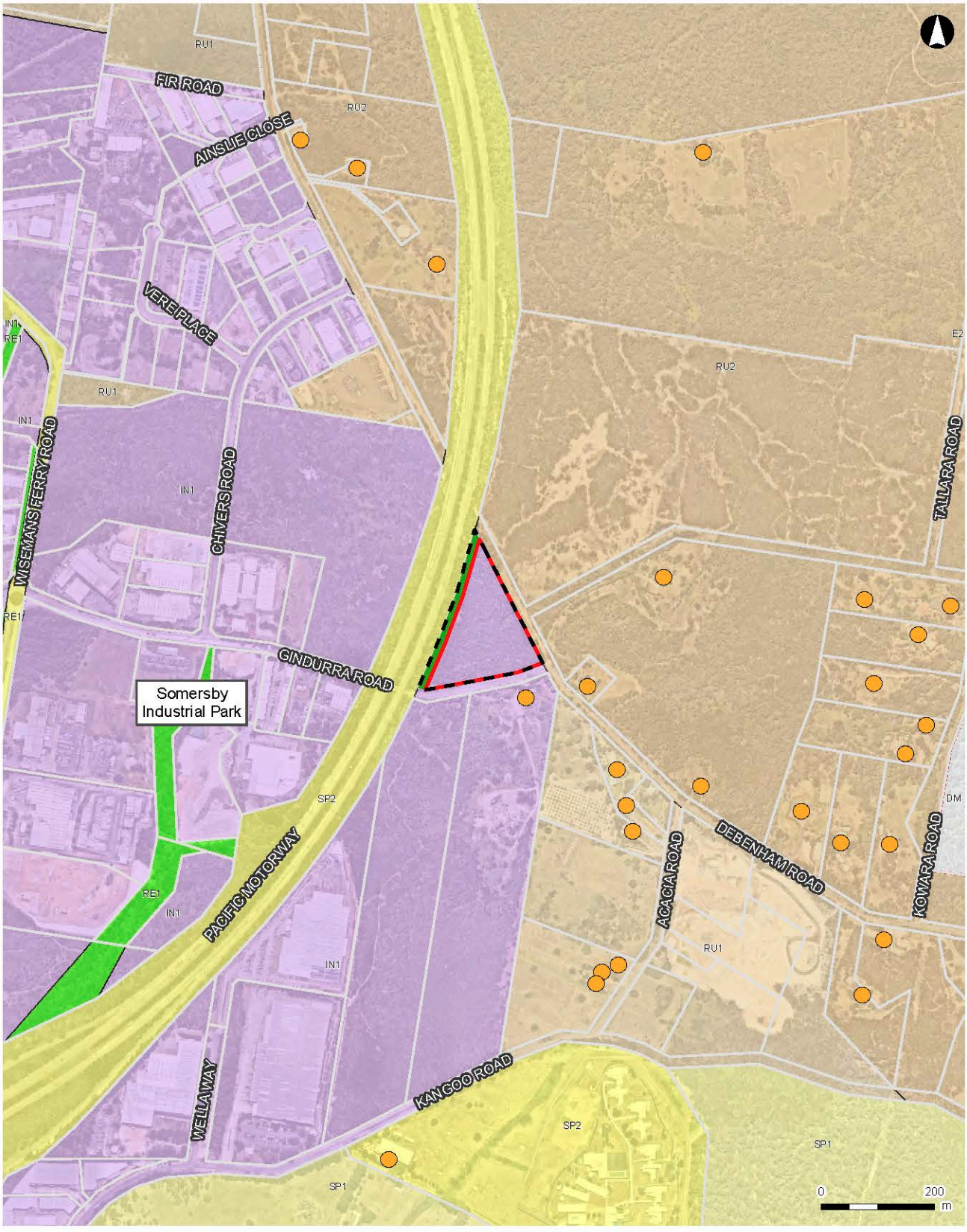


Figure 1: Location Map

Somersby Resource Recovery Facility



LEGEND

- Proposal Site
- Lot 11
- Habitat Link
- Residential receivers
- Cadastre

Land Use Zone

- E2 Environmental Conservation
- IN1 General Industrial
- RE1 Public Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- SP1 Special Activities
- SP2 Infrastructure
- DM Deferred Matter

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Figure 2: Surrounding Land Uses

1.4 Purpose of this Report

The Proposal is deemed State Significant Development on the basis that it satisfies Clause 23(3) in Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011*.

This report has been prepared to support a State Significant Development (SSD) application and provide documentation in support of a request for Secretary's Environmental Assessment Requirements (SEARs) for the Proposal, which would inform the preparation of an Environmental Impact Statement (EIS) under Part 4 of the *Environmental Planning and Assessment Act 1979*.

This report provides an outline of the existing site operations, statutory approvals and a description of the proposed development as well as the identification of key potential environmental issues that may be associated with the Proposal.

2 PROPOSAL NEED AND OBJECTIVES

The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) and the *Protection of the Environment Operation Act 1997* (POEO Act) provide the legislative basis for regulating waste in NSW.

The WARR Act establishes the waste hierarchy that prioritises avoidance, followed by recycling, recovery and finally disposal. The key waste policy tool under this framework is the NSW Waste and Resource Recovery Strategy 2014-21, which sets goals that include:

- Avoiding and reducing waste generation
- Increasing recycling – with target recycling rates by 2021-22 of 80 per cent for construction and demolition (C&D) waste and 70 per cent for commercial and industrial (C&I) waste
- Diverting more waste from landfill to alternative uses, such as recycling and energy recovery.

The state-wide NSW 2021 plan re-commits the government to achieving the WARR Strategy recycling targets, setting this as a key priority (Goal 23). The POEO Act establishes the waste levy as a financial incentive for recycling over disposal, while the subordinate *Protection of the Environment Operations (Waste) Regulation 2015* establishes a number of instruments that influence the flow and fate of C&D waste.

2.1 Need for Proposal

Together with the regulatory mechanisms, the Proposal is underpinned by strong market drivers for both C&D and C&I waste recovery. Construction activity in residential, non-residential and infrastructure sectors has expanded rapidly in the Sydney basin in recent years and is forecast to continue. The June 2017 *Australian Industry Group/Australian Constructors Association Construction Outlook survey* (AI Group, 2017) forecast ongoing growth in major construction work, with turnover growing 6.4 per cent in 2018.

In housing construction, the November 2016 forecast by the NSW Department of Planning and Environment (DP&E) was for record levels of housing construction in Sydney over the coming five years (DP&E, 2017). Forecast construction of over 180,000 new homes in the next five years is a 59 per cent increase on the previous five years. The Proposal site is strategically located to service high levels of housing growth across the Greater Sydney Area.

Booming engineering construction for public infrastructure projects scheduled over the next decade will combine with this housing growth and forecast stable non-residential construction to underpin strong demand for C&D waste recycling capacity.

It is estimated that in NSW the quantity of C&D waste required to be recycled every year will grow by 1.07 million tonnes between 2017-2018, the, of which 80 per cent is expected to arise in the Greater Sydney Area.[1] (Figure 3).

[1] This estimation has been based on waste generation modelling completed in line with Gross State Product forecasts for NSW (as per the Budget Paper No.1 - Budget Statement Chapter 3: The Economy). Recycling capacity requirements have been determined by straight line improvement in annual recycling rates from 69% in 2010-11 (as per the NSW State of the Environment Report, 2015) to the 80% target rate. It therefore estimates an additional 1.07 million tpa of C&D recycling capacity statewide by 2021-22, of which 80% is expected to arise in Sydney (based on population).

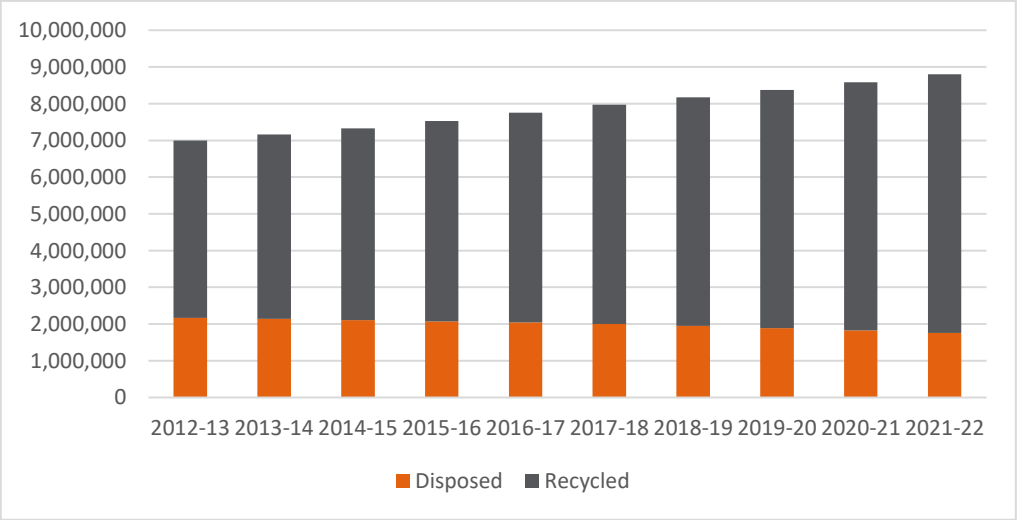

Figure 3 Forecast C&D waste recycling and disposal capacity requirements for Sydney

The Proposal is strongly aligned with a number of strategic government imperatives, providing support for:

- The Greater Sydney Commission's 2056 vision for the metropolitan area
- The WARR strategy's 2021 recycling targets
- Environment Protection Authority's (EPA's) proposed C&D minimum standards
- Secure provision of construction materials in a booming construction market.

There is limited recent, granular data on C&D waste generation and recovery, but the available data suggests there has been no clear sustained improving trend in recycling in this sector since 2006-07. The *National Waste Report 2016 (*Department of the Environment and Energy, 2016) indicates that 6.1 million tonnes of C&D waste was generated across NSW in 2014-15, of which an estimated 4.4 million tonnes was recycled. This is a recycling rate of 72 per cent, while the NSW EPA's *2015 State of Environment Report* (NSW EPA, 2015) indicates the C&D recycling rate from 2006-07 to 2012-13 fluctuated between 67 per cent and 75 per cent. There is no clear progress towards the WARR strategy's C&D recycling target of 80 per cent by 2021. The Proposal site would deliver a significant increase in recycling capacity that will narrow the gap to the 2021 target.

Further, a critical reform that will shape the C&D waste market in the future is the minimum standards for C&D operations proposed by the EPA in an October 2016 discussion paper and updated in November 2017 via the draft *Protection of the Environment Operations Legislation Amendment (Waste) Regulation 2017 (NSW EPA, 2017)*. The explanatory paper underpinning the reforms notes:

> *"There has been an increase of infrastructure and construction projects within Sydney, Wollongong, Newcastle and surrounds. This should result in increased recovery of materials from the C&D waste sector. However, increases are not being seen and a number of operators in this sector have minimal environmental controls and poor processes."*

One key aspect of the draft amended Waste Regulation is introduction of mandatory performance standards for licensed facilities covering inspection, sorting and storage, which aim to:

- Increase the quality and quantity of recovered construction waste in NSW
- Minimise and control the risk of asbestos waste and other contaminants entering C&D facilities

- Divert valuable resources from landfill back into the productive economy
- Ensure waste-derived products being re-introduced into the economy are compliant with resource recovery orders and exemptions
- Ensure the safe re-use of quality waste derived products.

The proposed standards, as drafted, represent business as usual for the Applicant but will likely impact the many C&D operators with smaller sites, unenclosed facilities and mobile plant. The EPA acknowledges in its *Consultation report on the changes to the regulation of waste in NSW* summarising feedback on the draft amendment that "facilities may need to adjust their business model and/or waste types to ensure they have sufficient storage space for waste types". The amended regulation is likely to remove some capacity from the waste system as less sophisticated and/or space constrained C&D facilities close rather than incur the expense of complying with the new requirements.

The market impact may be heightened by the proposed requirement for intermodal (road-to-rail) facilities to secure an EPL, which is anticipated to reduce the flow of waste by rail to Queensland for cheap disposal and basic recovery. This will place a higher demand for C&D recycling services within NSW, in line with the EPA policy preference.

As noted in the objectives of the draft Waste Regulation above, provision of recovered construction materials back into the productive economy is a strategic objective, particularly in response to the booming Sydney construction market. The challenges of supplying construction materials has been recognised by governments and the construction sector. In 2014, Austroads, which consists of the three tiers of Australian government including Roads and Maritime Services NSW, released a report into the need for recycled construction materials. It noted:

> *"The costs of sourcing traditional pavement materials are increasing as sources are being exhausted, haulage distances are increasing, and access to traditional sources is increasingly restricted. As a result, jurisdictions are seeking alternative solutions, one of which is the use of recycled materials."*

The Proposal site will help meet a growing need for high quality construction materials including roadbase products, aggregates and sand.

2.2 Alternatives

The Applicant has previously undertaken a comprehensive investigation of sites across the Sydney metropolitan area to find a suitable site for the Proposal. The Proposal site was identified as the most suitable site for a number of reasons, including good road access for heavy vehicles, appropriate industrial zoning operations and proximity to waste generation sources in the Central Coast area, the Newcastle area and the Greater Sydney Area.

The C&D waste sector is highly fragmented, ranging from small transfer stations with basic mobile plant through to large processing facilities with automated sorting lines. There are relatively few competitor facilities in Sydney that have the advanced processing capability planned for the Proposal site and that are likely to meet the proposed minimum standards.

While there are multiple inert landfills in Sydney, the difficulty in securing approval for new landfills suggests landfill constraints will emerge and gate fees will increase in the medium term. This issue is likely to become more pressing, given the Queensland's Government March announcement to reduce waste from being transported from NSW to Queensland. The *Recycling and Waste in Queensland 2016* report (Queensland Government, 2016) estimates 566,000 tonnes of waste was transported across state borders to Queensland landfills in 2015-16, a 60.5 per cent increase year-on-year. Of

this, 494,000 tonnes was C&D waste, with the majority of it likely to be from the metropolitan area given the high Metropolitan Levy ($138.70 in 2017/18) and significant volume of construction activity.

Based on the above factors, the Proposal site has been considered the most suitable location for the Proposal.

3 PROJECT DESCRIPTION

This section provides a description of the Proposal. It is noted that the description provided below presents only an indicative and conceptual description of the Proposal, and that the final design of the Proposal may be altered from this description.

3.1 Proposal Description

The Applicant is seeking approval to construct and operate a Resource Recovery Facility that would process up to 500,000 tpa of waste, primarily comprising construction and demolition waste. An overview of the waste streams proposed to be processed at the RRF is presented in Appendix A.

A plan for the Proposal is presented as Figure 4. The Proposal would include the clearing of existing vegetation and the construction and operation of a fully enclosed processing shed incorporating processing equipment and stockpile, storage and handling areas, loading areas, vehicular access and parking, weigh bridges and wheel wash stations, a site office, and associated amenities. Associated infrastructure, such as utility installations and stormwater management systems and discharge points, would also be constructed.

Processing of waste would be undertaken within the enclosed building utilising front-end loaders, excavators, rock crushing plant, timber chippers, finger screens and balers.

The Proposal aims to recover, reuse and/or recycle up to approximately 90 per cent of material suitable for reuse in secondary markets, including concrete, plastic, paper, wood and metal

The key construction components of the Proposal would include:

- Clearing of vegetation on the Proposal site
- Construction of an enclosed processing shed incorporating processing facilities and stockpile, storage and handling areas. The processing shed would be constructed of precast walls to approximately 6 m in height, and colorbond walls above 6 m in height. The total maximum height of the processing shed would be approximately 14-15 m.
- Installation of processing equipment, including:
  - Finger screens
  - Balers
  - Rock crushing plant
  - Timber chippers
  - Magnets
  - Picking stations
  - De-stoners
- Construction of an entry and exit weighbridges
- Construction of an in-ground wheel wash unit prior to exit weighbridge
- Construction of a sprinkler pump room and underground stormwater detention tanks
- Provision of dust suppression systems including misting systems
- Installation of utility installations and stormwater management systems
- Construction of a bunded undercover fuel storage area

- Construction of site office and associated facilities
- Provision of vehicular access and parking, including:
  - Parking for approximately 40 light vehicles.
  - Heavy vehicle stacking spaces, the number of which would be identified the detailed design stage and incorporating the traffic assessment to be undertaken.
- Installation of landscaping to the street frontage

The key operational components of the Proposal would include:

- Processing of up to 500,000 tpa of non-putrescible waste, with a Resource Recovery Rate of up to 90 per cent
- Waste storage of up to 40,000 tonnes of non-putrescible waste at any given time.
- Operation of the Proposal (including processing and waste delivery and collection) to 24 hours per day, seven days per week (no works on public holidays would be undertaken).

Once constructed, the Proposal would employ approximately 50 full-time equivalent employees, with approximately 20 to 25 employees present on site during each shift.

3.2 Construction Activities

Construction activities would include the following:

- Clearing of vegetation on-site
- Excavation, filling, compacting and grading of the Proposal site
- Construction of hardstand area at the Proposal site
- Construction of a processing shed and installation of resource recovery plant and machinery
- Installation of ancillary infrastructure and utilities.

Detail of construction stages and timing would be provided in the EIS.

3.3 Operations

The key operational components of the Proposal would include:

- Receipt of C&D waste within an enclosed tipping area, with manual and mechanical removal of hazardous or non-conforming items from the waste stream
- Mechanical processing of waste using the processing equipment identified in Section 3.4.
- Recovery of recyclables through a manual picking line, including paper and cardboard, timber, green waste, plasterboard, metals and concrete/brick
- Transferral of processed waste into temporary storage bays.
- 24-hour operations, seven days per week.

Somersby Resource Recovery Facility

LEGEND

- Proposal Site
- Lot 11
- Habitat Link
- Traffic flow
- Carpark
- Pavement
- Conveyor
- Excess Bale Storage
- Landscaped Area
- Processing
- Storage
- Tip Floor
- Weighbridge
- Cadastre

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Aerial imagery supplied by nearmap, December 2017

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Figure 4: Site Plan

3.4 Equipment

The equipment to be utilised at the Proposal site would include the following:

- Loaders and excavators
- Industrial street sweeper
- Forklifts
- State of the art in line processing/separating plant incorporating:
  - Finger screen
  - Magnet
  - Picking station
  - De Stoner
  - Balers
  - Hopper feeder – timber and rock
  - Rock crusher
  - Timber chipper

4 PLANNING CONSIDERATIONS

The following section provides an overview of the key legislation and planning instruments applicable to the Proposal. A detailed assessment of all the relevant legislation would be undertaken as part of the EIS.

4.1 Commonwealth Legislation

The Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides for the protection and management of Matters of National Environmental Significance (MNES), including the following:

- world heritage properties
- national heritage places
- wetlands of international importance (listed under the Ramsar Convention)
- listed threatened species and ecological communities
- migratory species protected under international agreements
- Commonwealth marine areas
- the Great Barrier Reef Marine Park
- nuclear actions (including uranium mines)
- a water resource, in relation to coal seam gas development and large coal mining development

Threatened flora and fauna species and ecological communities that may be impacted by the Proposal have been identified in Section 5.2.1, and Appendices B and C. The EIS would consider whether any of these species or communities, or any listed migratory species, would be significantly impacted by the Proposal. If so identified, the Proposal would be referred to the Commonwealth Minister for the Environment.

The Proposal is not anticipated to impact any other MNES.

4.2 NSW Legislation

4.2.1 Environmental Planning and Assessment Act 1979

The EP&A Act and EP&A Regulation provide the regulatory framework for planning approval and environmental assessment in NSW. Part 4 of the EP&A Act provides for control of 'development' that requires development consent from the relevant consent authority. Division 4.1 of Part 4 provides for control of SSD where the Minister for Planning (or delegate) is the consent authority.

The Proposal would be considered State Significant Development (SSD) under Clause 23 (waste and resource management facilities) of Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011,* which refers to:

> *(3) Development for the purpose of resource recovery or recycling activities that handle more than 100,000 tonnes per year of waste*

4.2.2 Other Legislation

The EIS would provide a review of the Proposal against relevant legislation. Legislation that may be applicable to the Proposal includes, but may not be limited to:

- *Protection of the Environment Operations Act 1977 (POEO Act):* The Proposal would be a Scheduled Activity as per Schedule 1 of the POEO Act, and would consequently require an EPL under Section 48 of the POEO Act.
- *Biodiversity Conservation Act 2016* (BC Act): The BC Act provides for the protection and management of threatened species, populations and ecological communities in NSW. The Applicant notes that the ecological assessments undertaken in Section 5.1 were completed prior to the commencement of the BC Act in accordance with the *Threatened Species Conservation Act 1995* (TSC Act), and still contain references to species listed under the TSC Act. The status of these species has now been transferred to the BC Act.
- *Contaminated Land Management Act 1977* (CLM Act): The CLM Act establishes a process for investigating and (where appropriate) remediating land that the Environment Protection Agency (EPA) considers to be contaminated significantly enough to require regulation. As the Proposal site is an uncleared area, it is not considered likely that any land within the Proposal site is contaminated.
- The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act): The WARR Act aims to encourage the most efficient use of resources to reduce environmental harm and ensure that resource management is undertaken in a logical, sustainable and organised manner. The Proposal would promote resource recovery and diversion of waste to landfill.
- *Roads Act 1993*. Roads and Maritime and Central Coast Council would be consulted during the preparation of the EIS.

4.3 State Environmental Planning Policies

The following State Environmental Planning Policies (SEPPs) may be applicable to the Proposal, and would be considered within preparation of the EIS if required:

- *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55): SEPP 55 aims to promote the remediation of contaminated land with the objective of reducing the risk of harm to human health or other aspects of the environment. As the Proposal site is an uncleared area, it is not considered likely that any land within the Proposal site is contaminated.
- *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development* (SEPP 33): SEPP 33 links the permissibility of an industrial development proposal to its safety and environmental performance. The Proposal falls within the definition of a “potentially hazardous industry” or “potentially offensive industry” under the SEPP 33. A screening assessment to determine the need for a preliminary hazard analysis would be undertaken by the Applicant, the findings of which would be presented in the EIS.
- *State Environmental Planning Policy No 44* – Koala Habitat (SEPP 44): SEPP 44 encourages the conservation and management of areas of natural vegetation that provide habitat for koalas. The Gosford Local Government Area is listed in Schedule 1 of SEPP 44 as an area of potential koala habitat. An assessment of the presence of koalas within the Proposal site would be undertaken and presented in the EIS.
- *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP): Section 121 of the ISEPP facilitates the development for the purposes of waste or resource management facilities to be undertaken, with development consent within a ‘prescribed zone’ being Zone IN1: General Industrial. The Proposal site is zoned as Zone IN1: General Industrial under the *Gosford Local Environmental Plan 2014* (Gosford LEP). Therefore, development of waste or resource management facilities would be permissible on the Proposal site with development consent.

In addition, the ISEPP identifies development that is considered to be Traffic Generating Development. As per Schedule 3 of the ISEPP, a recycling facility or transfer station of any size or capacity is considered to be a Traffic Generating Development. The EIS will assess traffic impacts in accordance with ISEPP.

- *State Environmental Planning Policy No 64—Advertising and Signage* (SEPP 64): SEPP 44 regulates signage and advertising for the Proposal site. The Applicant would comply with all relevant advertising and signage regulations in accordance with SEPP 44.

4.4 Local Planning Instruments – zoning and permissibility

The relevant local planning instrument is the Gosford LEP. The Proposal site is zoned as Zone IN1: General Industrial under that instrument. A “resource recovery facility” is not prohibited under the Gosford LEP. As discussed in Section 4.3, Division 23 of *the ISEPP* permits the establishment and operation of a resource management facility with development consent.

The proposed enclosed processing shed would be approximately 14 m in height when constructed. This height is permissible under Clause 4.3 (2) of the Gosford LEP.

5 KEY ENVIRONMENTAL ISSUES

5.1 Overview

A preliminary assessment has been undertaken to identify key environmental issues associated with the construction and operation of the Proposal. Table 1 provides a list of key and other environmental aspects that are likely to arise from the Proposal, and a reference to relevant sections in this SSD application report where further context is provided. Key and other issues have been further assessed throughout Section 5.

Table 1 Overview of key and other environmental issues

Environmental Aspect	Preliminary Screening	Relevant Sections
Key issues		
Biodiversity	The Proposal would result in the clearing of approximately 2.5 ha of native vegetation. This may result in impacts to threatened species or communities. Indirect impacts from noise and night lighting may also occur.	5.2
Aboriginal Heritage	While no items of Aboriginal heritage have been located within the Proposal site, the potential for undiscovered, concealed Aboriginal sites to be located within the Proposal site is considered moderate. Construction and operation of the Proposal may impact any potential sites or artefacts of Aboriginal heritage significance.	5.3
Traffic, Access and Car Parking	The Proposal has been identified as a Traffic Generating Development, as per Schedule 3 of the ISEPP. Truck movements may result in impacts on surrounding intersections and roads.	5.4
Noise and Vibration	Noise from traffic and resource recovery operations could result in impacts to surrounding receivers.	5.5
Air Quality, including dust and greenhouse gas	Construction and operation including processing of waste, have the potential to generate dust and vehicle emission which may impact on sensitive receivers and the surrounding environment.	5.6
Stormwater Runoff, Contamination and Flooding	Management of waste has the potential to impact upon stormwater runoff if not appropriately managed. Surface water management during construction and operation has the potential to trigger local flooding or off site water quality impacts.	5.7
Hazards and Dangerous Goods	Storage and handling of hazardous and dangerous goods on site may result in impacts to the surrounding environment.	5.8

Environmental Aspect	Preliminary Screening	Relevant Sections
Socio-Economic	The Proposal would result in socio-economic benefits to the local economy by employing local labour.	5.9
Other Issues		
Landscape and visual amenity	Changes in the visual landscape from construction and operation of the Proposal may result in visual impacts to views.	5.10.1
Non-Aboriginal Heritage	The Proposal site is located within the vicinity of the Mount Penang Parklands, a conservation area and heritage item. Construction and operation of the Proposal is unlikely to result in impacts to this heritage area if appropriately managed.	5.10.1
Waste Management	Construction of the Proposal would result in the generation of construction waste. During operation, the Proposal would handle and generate waste which may result in environmental impacts if not appropriately managed.	5.10.3

All potential environmental impacts will be considered further as part of the EIS, including a detailed assessment of the key issues.

Potential environmental impacts associated with the Proposal will be considered and if required, managed through the implementation of appropriate mitigation and control measures.

5.2 Biodiversity

5.2.1 Overview

The Proposal site is currently vegetated, with predominantly native species and vegetation communities. Arcadis conducted a desktop review of existing vegetation communities and threatened flora and fauna species, followed by site investigations on the following dates:

- 28 November 2017: Targeted surveys for threatened flora species and recording of incidental fauna sightings
- 12 December 217: Targeted surveys for threatened flora species and recording of incidental fauna sightings.
- 16 January 2018: Targeted surveys for threatened flora species in accordance with the survey guidelines for *Prostanthera junonis,* including validation surveys of comparable sites. Recording of incidental fauna sightings and installation of next boxes for future surveys of Eastern Pygmy Possum *(Cercartetus nanus*).

The following sections describe the existing vegetation communities and threatened flora and fauna present on-site.

5.2.1.1 Vegetation Communities

Inspection and retargeted surveys determined that the Proposal site supports remnant woodland in generally good condition, with a sparse canopy of eucalypts. The majority of the Proposal site supports a dense shrub layer dominated by Banksia and Casuarina species. Disturbance of this shrub layer was observed in some areas of the Proposal site, with areas of felled shrubs.

The vegetation across most of the Proposal site does not conform to any threatened ecological communities listed under the TSC Act of EPBC Act. A small patch of vegetation with fern dominance of the ground layer in the north of the Proposal site may fall within the definition of *Coastal Upland Swamps in the Sydney Basin Bioregion*, an endangered ecological community (EEC) under the TSC Act and EPBC Act. This patch was mapped by Bell (2009) as *Exposed Hawkesbury Woodland (Map Unit E26)* (Figure 5).

The presence or absence of the threatened ecological community within the Proposal site will be determined through quadrat survey and further analysis of the final determination for Coastal Upland Swamps in the Sydney Basin Bioregion. The area of potential EEC is small and occurs upslope of the majority of the site, and its removal would be unlikely to result in a significant impact to the EEC in the locality.

Legend
E26: Exposed Hawkesbury Woodland
E29: Hawkesbury Banksia Scrub-Woodland
E54: Sandstone Hanging Swamps

Figure 5 Vegetation mapping of the Proposal site by Bell (2009)

5.2.1.2 Threatened Flora Species

No threatened flora species were observed during site inspections. Within the Proposal site here is potential habitat for the flora species *Prostanthera junonis* (Somersby Mintbush), which listed as Endangered under the EPBC Act and TSC Act. The species was recorded approximately 35 to 40 metres east of the Proposal site in 1997, however no *Prostanthera junonis* was observed during the targeted survey undertaken on 16 January 2018. These survey results were validated by surveys of comparable sites where *Prostanthera junonis* was observed.

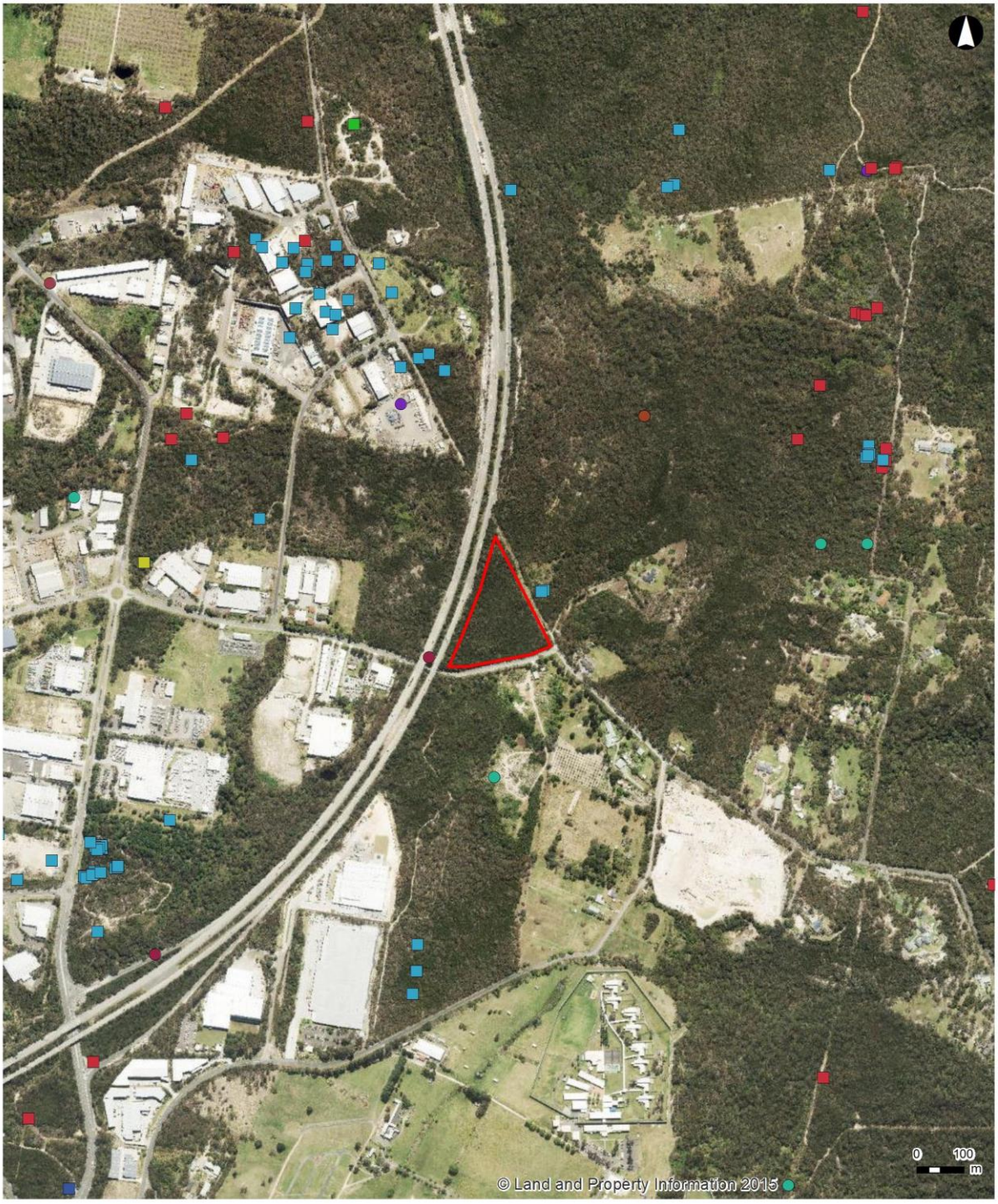
Based on the review of database records, six threatened flora species are considered to have a moderate to high likelihood of occurrence within the Proposal site (Figure 6). Appendix B outlines the potential threatened species identified in background searches/desktop assessment that have the potential to occur on the site.

Threatened Fauna Species

Fauna habitat features were observed within the Proposal site, including hollow-bearing trees, foraging resources (myrtaceous and flowering shrubs), ground layer habitats such as ground timber, ground layer vegetation and well-developed leaf litter. The site represents potential habitat for a number of threatened species, including birds, bats and other small mammals as follows:

- *Allocasuarina littoralis,* a preferred food resource of the Glossy Black Cockatoo (*Calyptorhynchus lathami*), listed as Vulnerable under the TSC Act, was found in abundance across the site. No recent feeding signs were observed during site visits.
- Hollow-bearing trees across the site could provide nesting/roosting habitat for threatened microbats. It is possible that the large trunk hollow observed in the east of the site is inhabited by an owl, potentially the threatened Masked Owl (*Tyto novaehollandiae*), listed as Vulnerable under the TSC Act. It is recommended to investigate the inhabitant of this hollow further through survey such as stagwatch.
- The groundlayer vegetation on site may offer potential sheltering and foraging habitat to the threatened Eastern Pygmy Possum (*Cercartetus nanus*), listed as Vulnerable under the TSC Act.
- The eastern drainage line does not contain fish habitat and is unlikely to provide habitat for threatened frogs, given the likely poor water quality.

Based on the review of database records, 24 threatened fauna species are considered have a moderate to high likelihood of occurrence on the site. Appendix C outlines the threatened species identified in background searches/desktop assessment that have the potential to occur on the site (Figure 6).



LEGEND

Lot11 DP616412

Threatened species

- Baloskion longipes
- Darwinia glaucophylla
- Epacris purpurascens var. purpurascens
- Hibbertia procumbens
- Prostanthera junonis
- Eastern Bentwing-bat
- Eastern Freetail-bat
- Eastern Pygmy-possum
- Giant Burrowing Frog
- Large-eared Pied Bat
- Little Bentwing-bat
- Little Lorikeet
- Red-crowned Toadlet
- Southern Myotis
- Spotted-tailed Quoll

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QA by : RB

Figure 6 Listed Threatened Species Locations

5.2.2 Summary of Issues

5.2.2.1 Construction

Construction of the Proposal would result in direct impacts to biodiversity, primarily the clearing of approximately 2.5 ha of native vegetation. These clearing activities may also result in disturbances to the threatened flora and fauna species listed in Appendices B and C.

The Applicant notes that the habitat link that forms the western part of Lot 11 would not be disturbed as a result of the Proposal. This habitat link would not be disturbed by the Proposal, ensuring that fauna species can continue to use the vegetation adjoining the Pacific Motorway as a wildlife corridor, minimising habitat fragmentation.

5.2.2.2 Operation

Operation of the Proposal may result in indirect impacts to threatened fauna species through noise and vibration impacts, air quality impacts and night-lighting impacts. These impacts would be consistent with the existing environment of the Somersby Industrial Park, and are not considered to be significant.

5.2.3 Proposed Further Assessment

A Biodiversity Development Assessment Report (BDAR) will be prepared in accordance with the Biodiversity Assessment Methodology as part of the EIS to evaluate the impacts of the Proposal on biodiversity. The assessment will include:

- Plots in accordance with the Biodiversity Assessment Methodology
- Non-seasonal targeted surveys for flora and fauna species
- Bat detection surveys using acoustic software
- Calculation of offsets required under the Biodiversity Offset Scheme.
- Identification of feasible and reasonable mitigation measures to address biodiversity impacts during the construction and operation of the Proposal.

Identified mitigation measures will be incorporated in the Proposal design.

5.3 Aboriginal Heritage

A preliminary assessment of the for Aboriginal heritage at the Proposal site was undertaken by Artefact (Artefact, 2017). The assessment included a desktop review of listed Aboriginal heritage items, followed by a site investigation on 10 May 2017. The following sections describe the known sites of Aboriginal heritage in the vicinity of the Proposal site and the likelihood of further discoveries of Aboriginal heritage within the Proposal site.

5.3.1 Overview

5.3.1.1 Existing sites

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) for coordinates (340809, 6302545) (342809,6300545) was conducted by Artefact on 11 May 2017. The search found 35 recorded sites within the search area as summarised in Table 2 and presented in Figure 7.

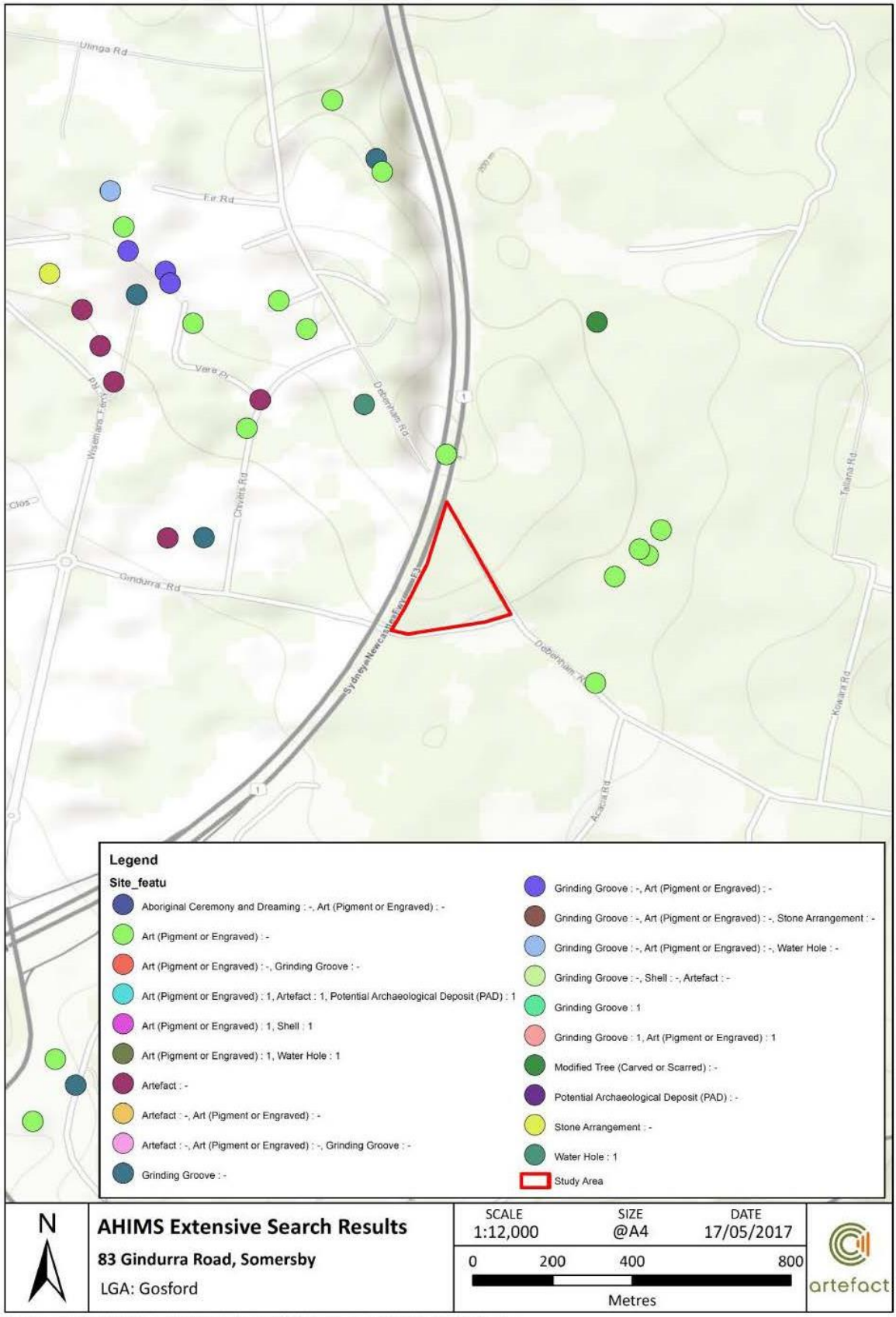

Figure 7 AHIMS Extensive Search Results (Artefact, 2017)

Table 2 Frequency of recorded Aboriginal Heritage site types

Site Feature	Frequency	Percentage
Art (pigment or engraved)	21	48.8%
Artefact	5	11.6%
Grinding groove	10	23.2%
Modified tree (carved or scarred)	1	2.3%
Stone arrangement	2	4.7%
Water hole	4	9.3%

No recorded Aboriginal heritage sites were located within the Proposal site.

Site investigation was undertaken by Artefact on 10 May 2017. The inspection was limited in its effectiveness by the dense vegetation and groundcover. No Aboriginal objects, carvings, scarred trees, or any other evidence of former Aboriginal occupation was noted within the Proposal site during the site investigation.

The Somersby Industrial Park DPoM displays an Aboriginal Heritage Site Management Zone as being present Lot 11 (Figure 8). The Applicant notes that no Aboriginal heritage site in this area was listed in the AHIMS database, and that no existing site in this location was observed during the site investigation.

5.3.1.2 Potential for undiscovered sites

The potential for undiscovered, concealed Aboriginal sites to be located within the Proposal site is considered to be moderate as it is located:

- within a sensitive landform as defined by the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW, 2010)
- approximately 200 m from a first-order intermittent stream
- within the vicinity of numerous identified Aboriginal heritage sites
- in an area of highly restricted ground surface visibility.

5.3.2 Summary of Issues

5.3.2.1 Construction

Construction of the Proposal would include ground-disturbing activities, which may impact any undiscovered items of Aboriginal heritage located within the Proposal site. Given that the potential for undiscovered sites to be located within the Proposal site is considered to be moderate, the risk to disturbance from construction activities is also considered to be moderate.

5.3.2.2 Operation

Operation of the Proposal would not result in any further ground-disturbing activities, and no operational aspects of the Proposal are anticipated to result in significant impacts to any listed or undiscovered items of Aboriginal heritage.

Somersby Resource Recovery Facility

LEGEND

- Proposal Site
- Lot 11
- Cadastre
- Aboriginal Heritage Site Management Zone
- Mount Penang Parklands

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Figure 8: Listed Heritage items

5.3.3 Proposed Further Assessment

Further assessment of the potential for Aboriginal heritage impacts will be undertaken within an EIS and will include:

- an Aboriginal heritage assessment, incorporating an archaeological assessment and consultation in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010) to identify the presence of any potential Aboriginal sites or places
- An assessment of the Aboriginal heritage significance of any identified Aboriginal sites or places
- The identification of feasible and reasonable measures to mitigate Aboriginal heritage impacts.

Identified mitigation measures will be incorporated in the Proposal design.

5.4 Traffic, Access and Car Parking

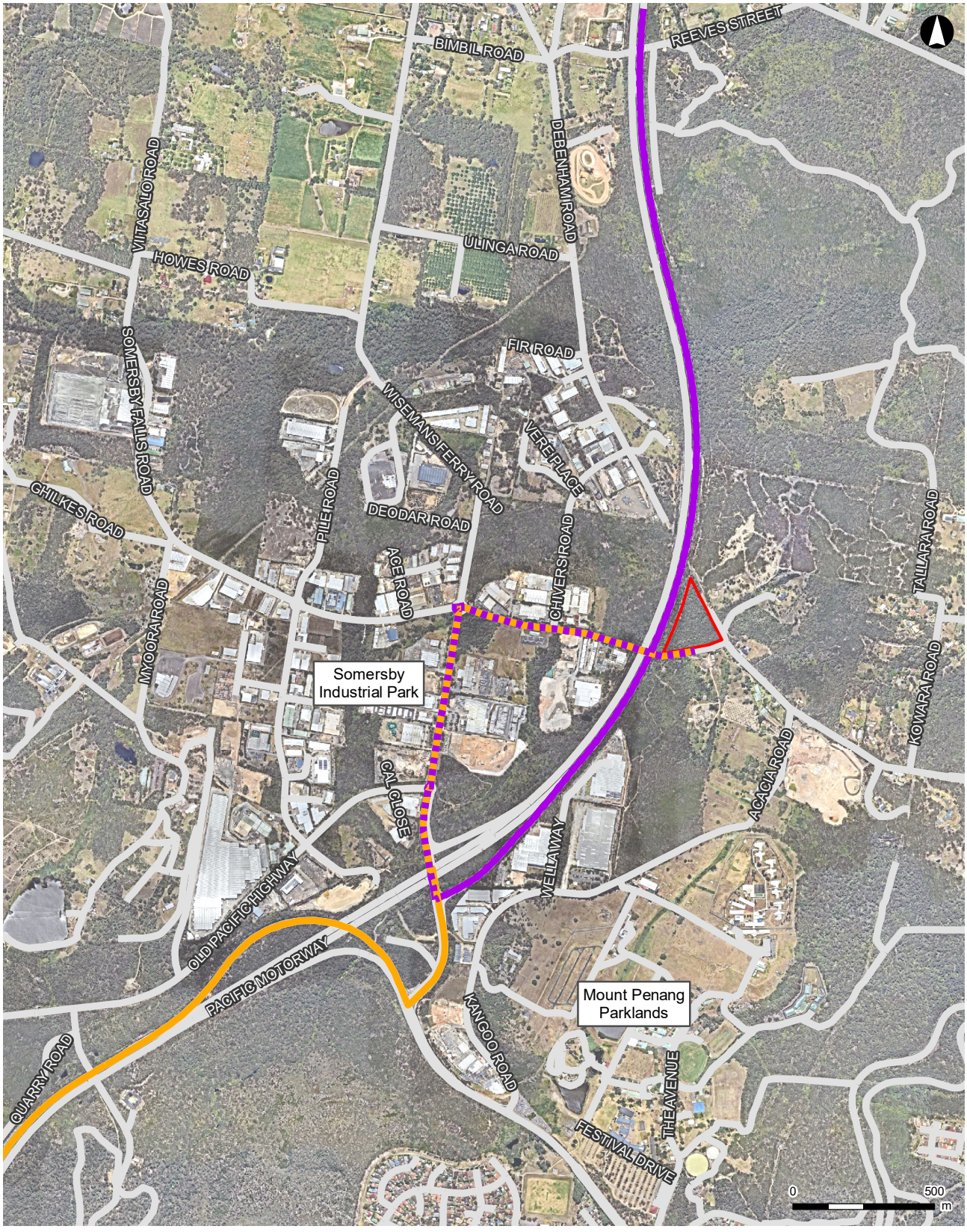
5.4.1 Overview

The Proposal site is located at 83 Gindurra Road, Somersby. Vehicles would access the Proposal site via a constructed driveway along Gindurra Road (Figure 4).

Vehicles approaching the Proposal site from the south would travel north along the Pacific Motorway taking the Central Coast Highway exit. They would then travel north along Wisemans Ferry Road to turn right at Gindurra Road, and continue travelling east to the constructed site driveway (Figure 9).

Vehicles approaching the Proposal site from the north would travel south along the Pacific Motorway, taking the Central Coast Highway / Wisemans Ferry Road exit. They would then travel north along Wisemans Ferry Road to turn right at Gindurra Road, and continue travelling east to the constructed site driveway (Figure 9).

Somersby Resource Recovery Facility



LEGEND

- Proposal Site
- North-approaching vehicles
- South-approaching vehicles
- Road

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Figure 9: Surrounding Road Network

The Proposal has been identified as a Traffic Generating Development, as per Schedule 3 of the ISEPP. It is noted that recycling facilities and waste transfer stations of any size or capacity are classified as a Traffic Generating Development.

On-site light and heavy vehicle car parking would be established under the Proposal as shown in Figure 4.

5.4.2 Summary of Issues

5.4.2.1 Construction

Construction of the Proposal would require the use of heavy vehicles to deliver construction plant, equipment and materials as well as remove waste from the Proposal site. The construction period would also result in increased use of light vehicles on the surrounding road network associated with the construction workforce.

It is anticipated that traffic impacts during the construction phase of the Proposal are likely to be minimal. The key impacts would be a slight increase in the number of heavy vehicles, construction equipment and construction personnel accessing the Proposal site from the Pacific Motorway via Wisemans Ferry Road and Gindurra Road (Figure 9).

5.4.2.2 Operation

The operation of the Proposal would result the generation of heavy vehicle movements associated with the transportation of waste to and from the Proposal site. Light vehicles would also be used to access the Proposal site by workers.

The potential impacts of the additional operational traffic from the proposed development on the surrounding road network may include:

- Increased heavy and light vehicle traffic may impact traffic movement
- Alterations to local intersection performance
- Potential for limited queuing traffic outside the site access point
- Alterations to road safety.

Further details would be considered regarding potential peak periods and volumes from traffic movements associated with the Proposal.

5.4.3 Proposed Further Assessment

The EIS will be accompanied by a comprehensive Traffic Impact Assessment that will determine the impacts associated with the Proposal for both construction and operational phases. It will also provide consideration of the following aspects:

- The current and future capability of local and regional road infrastructure
- The type and frequency of heavy vehicles proposed to utilise the Proposal site, including a separate assessment of operational heavy vehicle numbers without the use of B-Doubles
- The suitability of the proposed site layout to accommodate the predicted heavy vehicle movements from the site
- Details of the internal road layout network and parking in accordance with Australian Standards.

The EIS will include recommendations to mitigate the likely impacts of the development on the road network including manoeuvring arrangements, operational

management plans and the suitability of the existing road network to accommodate the Proposal. Appropriate consultation with NSW Roads and Maritime will be undertaken to satisfy the requirements of ISEPP.

5.5 Noise and Vibration

5.5.1 Overview

The Proposal site is located within the Somersby Industrial Park, adjacent to areas of nature conservation and rural residential areas. The noise environment at the Proposal site is influenced by the surrounding industrial businesses within the Somersby Industrial Park and the traffic noise of the Pacific Motorway, located adjacent to the site's eastern boundary.

The closest residential receivers to the Proposal site are located adjacent to the Proposal site's east southeast boundaries. The next closest residences are located approximately 200 m east of the Proposal site, approximately 400 m southeast of the Proposal site (Figure 2).

The closest industrial receiver, an industrial warehouse, is located approximately 100 m west of the Proposal site. Further industrial receivers are located to the west of the Proposal site in the Somersby Industrial Park.

5.5.2 Summary of Issues

5.5.2.1 Construction

During the construction of the Proposal, noise emissions would vary depending on the construction activities being undertaken. The construction of the Proposal would be likely to have the following impact:

- Noise-sensitive receivers may be impacted by construction traffic and the operation of plant and equipment. The extent of impact would vary according to the relationship of the construction works to the receiver location, intervening structures and the nature of construction work at various stages of the construction process.
- There would be potential for construction vibration impacts on nearby buildings and other structures. The level of impact would depend on the construction techniques used and the offset distances between the vibration source and the sensitive receiver.

5.5.2.2 Operation

Operational noise would be generated by plant and equipment as well as truck movements. Plant and equipment operations would largely take place within an enclosed environment, minimising the impacts of noise on surrounding receivers. On-site vehicle noise would be variable and would depend on the size and location of the vehicle relative to the receiver. As such, further assessment will be required to determine the operational noise impacts of the Proposal.

With regards to sleep disturbance, the Applicant anticipates that background noise would decrease in the evening. As such, further assessment will be required to determine the impact the Proposal would have on the amenity or sleep disturbance levels at surrounding residences.

5.5.3 Proposed Further Assessment

A noise and vibration assessment will be undertaken as part of the EIS to determine the potential impacts of the Proposal, both during construction and operation. The assessment will:

- Establish existing ambient and background noise levels at the potentially most affected off-site receiver locations
- Identify nearby sensitive receptors, land use and terrain
- Identify sound power levels for each piece of equipment or process
- Assess operational and construction noise impacts in accordance with the Noise Policy for Industry (2017) and the Interim Construction Noise Guideline respectively
- Assess traffic noise consistent with EPA's Road Noise Policy
- Identify feasible and reasonable noise mitigation measures to address noise exceedances at sensitive receivers.

Identified mitigation measures will be incorporated in the Proposal design.

5.6 Air Quality and Greenhouse Gas

5.6.1 Overview

A search of the Bureau of Meteorology (BOM) Climate Database was undertaken on 22 March 2018 to determine the temperature, rainfall and wind criteria for the area. The closest BOM weather station is the Peats Ridge Station (Station No. 061351), located approximately 12 km northwest of the Proposal site. The results indicate the following:

- Temperature data indicates that January is the hottest month, with a mean maximum annual temperature of 28.3 degrees Celsius (°C) and July is the coldest, with a maximum mean annual temperature of 17.3 °C.
- Rainfall data indicates that the wettest period for the area is between January and April, with the highest mean monthly rainfall recorded in February (154.3 mm).
- Wind data indicates that mean wind speeds are greater in the afternoon (3pm) than the morning (9am). Afternoon wind speeds tend to be greater from October to April (>20 km/h).

A search of the EPA Air Quality Data for the closest monitoring station, Wyong, was conducted on 22 March 2018. That search determined that the Wyong station has been within the average annual air quality goals set out within the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (NSW DEC, 2005) for PM_{10} and $PM_{2.5}$ for the past three years.

A search of the National Pollutant Inventory Database was conducted on 26 March 2018 to ascertain the historical and current pollutants being emitted from nearby industries in the vicinity of the Proposal site. There were 4 facilities listed on the National Pollutant Register located within 5 km of the Proposal site. These industries were found to emit 17 and transfer 0 different substances.

5.6.2 Summary of Issues

5.6.2.1 Construction

During construction, air quality impacts are likely to be caused by dust generation and emissions from demolition, earthworks, spoil storage and transport, vehicles, and plant and equipment.

5.6.2.2 Operation

Due to the physical nature of the operational activities, there is the potential for air pollution due to suspended dust particles. The dust which would emanate from the Proposal site would generally be caused by either wind or traffic entering and exiting the site. The emission sources and major pollutants identified at the Proposal site are as follows:

- Particulate emissions from loading/unloading of waste material
- Particulate emissions from waste material handling/sorting/processing activities
- Particulate emissions from onsite vehicle movements
- Particulate emissions from wind erosion from onsite stockpiles and exposed areas.

5.6.3 Proposed Further Assessment

An air quality investigation will be conducted as part of the EIS to evaluate the impact of emissions of key pollutants to inform mitigation and management measures for the construction and operation of the Proposal. The assessment will:

- Generate a site-representative meteorological dataset. Observational data from the nearest Bureau of Meteorology will be assimilated into the model as required by the NSW EPA.
- Predict air quality impacts from the operation of the facility. In addition, cumulative particulate matter impacts will be assessed.
- Identify feasible and reasonable management measures (particularly dust suppression management measures) to be implemented as a core design parameter.

5.7 Stormwater Runoff, Contamination and Flooding

5.7.1 Overview

5.7.1.1 Stormwater Runoff

The Proposal site is unsealed and currently vegetated.

The Proposal site slopes from an elevation level of approximately 232 m above height datum (AHD) in the north of the site to an elevation level of approximately 213 m AHD at the southern boundary. Within the Proposal site, surface water flows into an unnamed creek located approximately 100m east of the site's eastern boundary. The unnamed water course flows east to confluence with Narara Creek, and continues to flow south into Brisbane Water.

5.7.1.2 Contamination

The Proposal site is classified as containing Class 5 acid sulphate soils within the Gosford LEP. Clause 7.1 of the Gosford LEP provides that development consent is required for the carrying out of works when the following conditions are met:

- Class 5: Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

The proposed works would not:

- be carried out on any land that is below 5 m AHD in elevation

- result in the watertable being lowered by 1 m within the Proposal site or at any adjacent land.

As a result, the Proposal is not anticipated to significantly impact acid sulphate soils.

Given that the Proposal site is currently uncleared and vegetated, the risk of existing on-site contamination is considered to be low. A search of the List of NSW Contaminated Sites Notified to the EPA on 22 March 2018 did not identify any contaminated sites within the vicinity of the Proposal site.

5.7.1.3 Flooding

The Proposal site is not identified in any 1% AEP flood extent mapping (Figure 10). As a result, flooding is not considered to be a significant risk for the Proposal site.

5.7.2 Summary of Issues

5.7.2.1 Construction

The Proposal may have a potential to have the following impacts:

- Erosion and sedimentation transport through exposed soils and stockpiled materials
- Water contamination resulting from an increase in sediment loads entering the stormwater system and entering nearby receiving waterways
- Change in overland flows impacting downstream flooding

5.7.2.2 Operation

Once the Proposal is operational, it could have the following impacts:

- C&D waste may generate small volumes of leachate which, if not contained, has the potential to contaminate the surrounding soils, groundwater and surface water bodies.
- Change in overland flow impacting downstream flooding regime
- Spills and leaks from operating machinery resulting in contamination of soil, groundwater and surface water

5.7.3 Proposed further Assessment

Further assessment of soil and water as part of the EIS for the Proposal is proposed to include the following:

- Assessment of potential impacts of the Proposal on soil and water resources, including potential soil contamination, salinity, acid sulfate soils and flooding
- Preparation of a site water balance to support sustainable water use at the Proposal site
- Details of stormwater/wastewater/leachate management systems, including capacity of onsite detention systems and measures to treat, reuse or dispose of stormwater
- Provide recommendations for erosion and sediment control measures during construction and operation of the Proposal. Recommendations will be consistent with the *Managing Urban Stormwater: Soils and Construction* volume 1 and volume 2 series published by the former NSW Department of Environment and Climate Change (DECC) in 2008.

Somersby Resource Recovery Facility

LEGEND

- Proposal Site
- Lot 11
- Habitat Link
- Watercourse
- Waterbody

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Figure 10: Hydrological Environment

5.8 Hazards and Dangerous Goods

5.8.1 Overview

The proposed operations involve the use and storage of hazardous and dangerous goods, namely:

- Diesel fuel
- LPG
- Oils, greases and hydraulic fluids
- Oxyacetylene
- Solvents for maintenance
- Waste oil.

As a result, the Proposal falls within the definition of a “potentially hazardous industry” or “potentially offensive industry” under SEPP 33. A screening assessment to determine the needs for preliminary hazard analysis would be undertaken by the Applicant, the results of which would be presented in the EIS.

In addition to dangerous goods, there is the potential for a number of hazards and risks that are discussed below.

5.8.2 Summary of Issues

5.8.2.1 Construction

Hazards and risks associated with construction of the Proposal, including but not limited to collisions, spills, disturbance of contamination and health impacts associated with dust, will be managed as part of a Construction Environmental Management Plan (CEMP), which will be prepared prior to construction commencing. Work health and safety (WHS) risks will be identified with the CEMP and managed in accordance with the *Work Health and Safety Act 2011*.

5.8.2.2 Operation

Hazards associated with operation of the Proposal, including but not limited to collisions and spills, will be managed as part of an Operational Environmental Management Plan (OEMP), which will be prepared prior to operation commencing.

5.8.3 Proposed Further Assessment

The EIS will confirm the types, quantities, storage locations and storage conditions of any dangerous goods proposed to be stored on site. The EIS will also confirm the proposed frequency transport movements relating to dangerous goods. Where any exceedances to thresholds are identified, the EIS will be supported by a comprehensive Preliminary Hazard Analysis to determine the cumulative risks associated with the Proposal.

In addition to dangerous goods, a hazards and risk assessment will be conducted to assess the hazards and risks associated with the operation of the Proposal including the identification of management measures to be implemented.

5.9 Socio-economic

5.9.1 Overview

The Proposal would be constructed and operated within the Gosford Statistical Area Level 3 (Gosford Area). The Gosford Area recorded a population of 169,053 during the 2016 census, an increase from the 163,111 people recorded during the 2011 census (ABS, 2016) (ABS, 2011).

Labourers and machinery operators and drivers collectively account for 13.5 per cent of employment within the Gosford Area as of 2016 (ABS, 2016).

5.9.2 Summary of Issues

5.9.2.1 Construction

Proposed construction activities would take approximately 12 months. Construction impacts are anticipated be temporary and localised to the Proposal site and surrounding locality. As a result, it is anticipated that construction of the Proposal will have not result in significant socio-economic impacts to the surrounding area.

The Proposal is anticipated to provide positive impacts in the form of employment of approximately 70 people during construction, the payment of taxes and the purchasing of goods in the local area wherever practicable.

5.9.2.2 Operation

During operation of the Proposal it is expected that the Proposal will have a positive impact on the surrounding locality. This can be attributed to the creation of approximately 50 jobs, contribution of taxes and the purchasing of goods in the local area wherever practicable.

5.9.3 Proposed Further Assessment

Further assessment of the potential for socio-economic impacts will be undertaken within an EIS and will include:

- an assessment of the negative and positive construction and operational socio-economic impacts in relation to the demographic profile of the surrounding areas.
- The identification of feasible and reasonable measures to mitigate socio-economic impacts.

5.10 Other Issues

5.10.1 Landscape and visual amenity

5.10.1.1 Overview

The Proposal includes the clearing of approximately 2.5 ha of vegetation and the construction of an RRF comprising an enclosed processing shed incorporating processing equipment and stockpile, storage and handling areas, loading areas, vehicular access and parking, weigh bridges and wheel wash stations, a site office, and associated amenities.

To the west of the Proposal site, the visual nature of the surrounding area is dominated by other industrial land uses within the Somersby Industrial Park and the Pacific Motorway. Views of the proposal from the west would therefore be typical of the existing visual environment, and would be shielded by the habitat corridor along the western boundary of Lot 11.

To the east and south of the Proposal site, the Proposal is anticipated to be visible from 90 Gindurra Road, Somersby, which is located to the south of the Proposal's southern boundary. The Applicant notes that part of 90 Gindurra Road is currently being used as for industrial purposes. As a result, the view from 90 Gindurra Road would by typical of the existing environment.

Views of the Proposal from other residences in the vicinity of the Proposal site would be obstructed by mature vegetation.

As a result, the Proposal is generally consistent with the existing character of the broader area. The proposed maximum height of the Proposal is 14 m, which is generally consistent with other industrial land uses within the Somersby Industrial Park, and is permitted under the Gosford LEP.

5.10.1.2 Summary of Issues

5.10.1.2.1 Construction

The construction of the Proposal would result in the clearing of approximately 2.5 ha of vegetation, which has the potential to result in visual impacts as construction activities may be visible from surrounding areas. Potentially visible activities include sites/compounds, relatively high and/or bulky temporary structures and equipment that may impact users of surrounding roads, neighbouring developments, and Revesby residential properties.

5.10.1.2.2 Operation

The operation of the Proposal would be generally consistent with the existing character of the Somersby Industrial Park. However, the Proposal may be visible from residences and rural land uses to the east and south of the Proposal site. The view of the Proposal site from these areas is generally shielded by mature vegetation in the vicinity of the Proposal site.

5.10.1.3 Proposed Further Assessment

Further assessment of the potential for visual and landscape character impacts will be undertaken within an EIS and will include:

- Identification of the visual qualities present, including the existing landscape character of the region, sensitive locations, catchments and key viewpoints
- An assessment of visual impacts, incorporating the landscape and urban character of the area, views to and from the Proposal, magnitude of change to existing views and the visual sensitivity of the viewers.
- The identification of feasible and reasonable measures to mitigate landscape and visual amenity impacts.

Identified mitigation measures will be incorporated in the Proposal design.

5.10.2 Non-Aboriginal Heritage

5.10.2.1 Overview

The Gosford LEP does not identify any non-Aboriginal heritage items or places as being present within the Proposal site. As the site is not cleared and is currently vegetated, it is considered unlikely that non-Aboriginal heritage items are present on-site.

The Gosford LEP identifies a conservation are and heritage item, the Mount Penang Parklands, located approximately 630m south of the Proposal site (Figure 8). The Applicant notes that heavy vehicles would not drive in close proximity to the Mount Penang Parklands (see Figure 9).

A search of the NSW Office of Environment and Heritage's State Heritage Register conducted on 23 March 2018 did not identify any additional items listed under the *Heritage Act 1977* within the vicinity of the Proposal site.

5.10.2.2 Summary of Issues

5.10.2.2.1 Construction

With the exception of vehicle movements, construction activities would be confined to the Proposal site. While heavy and light vehicles will access the Proposal site during the construction period, these vehicles are anticipated to travel to the Proposal site via Wisemans Ferry Road and Gindurra Road, and would not travel past the Mount Penang Parklands.

Views of the Proposal site from the Mount Penang Parklands are largely obstructed by vegetation and existing structures. As a result, the construction of the Proposal is not anticipated to result in significant impacts on non-Aboriginal heritage.

5.10.2.2.2 Operation

With the exception of vehicle movements, construction activities would be confined to the Proposal site. While heavy and light vehicles will access the Proposal site to deliver and remove waste, these vehicles are anticipated to travel to the Proposal site via Wisemans Ferry Road and Gindurra Road, and would not travel past the Mount Penang Parklands.

Views of the Proposal site from the Mount Penang Parklands are largely obstructed by vegetation and existing structures. As a result, the operation of the Proposal is not anticipated to result in significant impacts on non-Aboriginal heritage.

5.10.2.3 Proposed Further Assessment

Further assessment of the potential for impacts to non-Aboriginal heritage will be undertaken in the EIS and will include:

- An assessment of the Proposal's potential impacts to non-Aboriginal heritage items in context of the surrounding vegetation and topographic landscape
- Consideration of the Proposal's impact upon items of non-Aboriginal heritage in the noise impact assessment
- Consideration of the Proposal's impact upon items of non-Aboriginal heritage in the visual impact assessment
- The identification of feasible and reasonable measures to mitigate non-Aboriginal heritage impacts.

Identified mitigation measures will be incorporated in the Proposal design.

5.10.3 Waste Management

5.10.3.1 Overview

Waste management employed throughout the operation of the Proposal would facilitate the maximisation of reuse and resource recovery opportunities, and minimise impact on the surrounding community and environment.

Once fully operational, the facility would handle a number of general solid waste streams (non-putrescible). A detailed list and description of the waste streams is provided in Appendix A.

5.10.3.2 Summary of Issues

5.10.3.2.1 Construction

During the construction phase, the potential waste streams that could be generated by the construction process include:

- Excess landscaping materials
- Excess drainage and piping materials
- Asphalt and bitumen waste
- Excess road construction materials (road base, stone etc)
- Formwork – use and offcuts
- Steel and steel reinforcement offcuts
- Fixings
- Timber
- Adhesive/resins/paints/fixings
- Batteries
- Miscellaneous construction chemicals
- Tool and equipment consumables
- Fuels/oils/grease
- Packaging – cardboard, plastic, crates, pallets and drums
- Putrescible waste from lunchrooms
- Plant and equipment maintenance waste (e.g. oily rags, oil filters, tyres etc).

5.10.3.2.2 Operation

The facility would be unlikely to generate substantial quantities of waste. No potential operational impacts have been identified.

5.10.3.3 Proposed Further Assessment

The EIS will document how such waste streams are to be managed on site and in the context of regulatory obligations under the POEO Act and the *Waste Avoidance and Resource Recovery Act, 200*1.

A resource and waste management assessment will be undertaken as part of the EIS to determine the potential impacts of the Proposal, both during construction and operations. The assessment will:

- Identify waste streams generated during the construction stage of the Proposal
- Assess waste management impacts associated with construction activities
- Identify management and mitigation measures for resource use and waste across the project including disposal sites and transport impacts.
- Include the preparation of a Construction Waste Management Plan.

6 CONSULTATION

The Applicant is committed to consulting with the local community and other stakeholders, including government agencies, regarding this proposed development. This will ensure that interested parties have the opportunity to understand the nature of the proposed development and can provide informed feedback.

During the preparation of the EIS the proponent will consult with the following:

- Central Coast Council
- Environment Protection Authority
- Department of Planning and Environment
- Office of Environmental and Heritage
- Department of Primary Industries
- Roads and Maritime Services
- Nearby land owners and occupiers that may be affected by the Proposal.

The EIS will describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, adequate explanation will be required in the EIS.

7 CONCLUSION

The Applicant is seeking approval to establish a Resource Recovery Facility (RRF) to process up to 500,000 tonnes per annum (tpa) of waste to be processed at 83 Gindurra Road, Somersby. Waste would primarily compromise construction and demolition (C&D) waste, commercial and industrial (C&I) waste, green waste, soils and timber waste, sourced from the Greater Sydney Area, primarily from the Central Coast to Newcastle areas.

Material would be brought to the facility, processed into recyclables and then sold to the end user for further processing. The residual, non-reusable materials would be transferred to a licensed landfill site.

The key construction components of the Proposal would include:

- Clearing of vegetation on the Proposal site
- Construction of an enclosed processing shed incorporating processing facilities and stockpile, storage and handling areas. The processing shed would be constructed of precast walls to approximately 6 m in height, and colorbond walls above 6 m in height. The total maximum height of the processing shed would be approximately 14 m.
- Installation of processing equipment, including:
  - Finger screens
  - Balers
  - Rock crushing plant
  - Timber chippers
  - Magnets
  - Picking stations
  - De-stoners
- Construction of an entry and exit weighbridges
- Construction of an in-ground wheel wash unit prior to exit weighbridge
- Construction of a sprinkler pump room and underground stormwater detention tanks
- Provision of dust suppression systems including misting systems
- Installation of utility installations and stormwater management systems
- Construction of a bunded undercover fuel storage area
- Construction of site office and associated facilities
- Provision of vehicular access and parking, including:
  - Parking for approximately 40 light vehicles.
  - Heavy vehicle stacking spaces, the number of which would be identified the detailed design stage and incorporating the traffic assessment to be undertaken.
- Installation of landscaping to the street frontage

The key operational components of the Proposal would include:

- Processing of up to 500,000 tpa of non-putrescible waste, with a Resource Recovery Rate of up to 90 per cent
- Waste storage of up to 40,000 tonnes of non-putrescible waste at any given time.

- Operation of the Proposal (including processing and waste delivery and collection) to 24 hours per day, seven days per week (no works on public holidays would be undertaken).

The Proposal would be considered SSD under Clause 23 (waste and resource management facilities) of Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011* and therefore requires the preparation of an EIS and consent from the Minister for Planning.

The potential environmental impacts have been identified and assessed as part of this amended SSD application report. The assessment concluded that minimal environmental impacts have been identified as a result of the Proposal. The key environmental issues identified for the project include:

- Biodiversity
- Aboriginal Heritage
- Traffic, Access and Parking
- Noise and Vibration
- Air Quality and Greenhouse Gases
- Lansdscape and Visual Amenity
- Stormwater Runoff, Contamination and Flooding
- Hazardous and Dangerous Goods
- Socio-economic.

The EIS will include the following in accordance with Schedule 1 of the EP&A Regs:

- A detailed description of the Proposal including its components, construction activities and potential staging
- A comprehensive assessment of the potential impacts on the key issues including a description of the existing environment, assessment of potential direct and indirect and construction, operation and staging impacts
- Description of measures to be implemented to avoid, minimise, manage, mitigate, offset and/or monitor the potential impacts
- Identify and address issues raised by stakeholders.

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APPENDIX A – PROPOSED WASTE STREAMS

Waste	Description	Activity*	Other Limits	Estimated volume (%)
General solid waste (non-putrescible)	General solid waste (non-putrescible) including but not limited to materials listed in this table	Waste Storage Resource Recovery Waste Processing		
General solid waste (non-putrescible)	Foundry sand waste that meets all conditions of a resource recovery order	Waste Storage Resource Recovery Waste Processing	-	0.1
General solid waste (non-putrescible)	Virgin excavated natural material	Waste Storage Resource Recovery Waste Processing	-	4
General solid waste (non-putrescible)	Building and demolition waste	Waste Storage Resource Recovery Waste Processing	-	0.1
General solid waste (non-putrescible)	Soils	Waste Storage Resource Recovery Waste Processing	-	10
General solid waste (non-putrescible)	Asphalt waste	Waste Storage Resource Recovery Waste Processing	-	1
General solid waste (non-putrescible)	Office and packaging waste (including paper, plastics, glass, metal, timber)	Waste Storage Resource Recovery Waste Processing	-	4
General solid waste (non-putrescible)	Non-chemical waste generated from manufacturing and services (including metal, timber, paper, ceramics, plastics, thermosets and composites)	Waste Storage Resource Recovery Waste Processing	-	2
General solid waste (non-putrescible)	Household waste from municipal clean up that does not contain food	Waste Storage Resource Recovery	-	1.5

Waste	Description	Activity*	Other Limits	Estimated volume (%)
		Waste Processing		
General solid waste (non-putrescible)	Household waste from residential clean up that does not contain food	Waste Storage Resource Recovery Waste Processing	-	75
General solid waste (non-putrescible)	Municipal and Council clean up materials from public, community and open space.	Waste Storage Resource Recovery Waste Processing	-	0.5
General solid waste (non-putrescible)	Garden waste	Waste Storage Resource Recovery Waste Processing	-	0.2
General or Specific Exempted Waste	Waste that meets all conditions of a resource recovery order	Waste Storage Resource Recovery Waste Processing	As specified in each particular resource recovery order	10
General solid waste (non-putrescible)	Glass, plastic, rubber, plasterboard, ceramics, bricks, concrete, metal	Waste Storage Resource Recovery Waste Processing	-	0.4
General solid waste (non-putrescible)	Paper, cardboard	Waste Storage Resource Recovery Waste Processing	-	0.4
General solid waste (non-putrescible)	Wood waste	Waste Storage Resource Recovery Waste Processing	-	1
General solid waste (non-putrescible)	Any mixture of wastes referred to above	Waste Storage Resource Recovery Waste Processing	-	Mix
General Solid Waste (non-putrescible)	Bulky goods waste containing building de-fit fittings, fixtures and furniture	Waste Storage Resource Recovery Waste Processing	-	0.1
General solid waste (non-putrescible)	Waste collected by, or on behalf of local councils from street sweepings	Waste Storage Resource Recovery	-	2

Waste	Description	Activity*	Other Limits	Estimated volume (%)
		Waste Processing		
General solid waste (non-putrescible)	Grit, sediment, litter, gross pollutants collected in and removed from stormwater treatment devices and or stormwater management systems that have been dewatered so that they do not contain free liquids	Waste Storage Resource Recovery Waste Processing	-	0.1
General solid waste (non-putrescible)	Grit and screenings from potable water and water reticulation plants that have been dewatered so that they do not contain free liquids	Waste Storage Resource Recovery Waste Processing	-	0.1
General solid waste (non-putrescible)	Non-putrescible vegetative waste from agriculture, silviculture or horticulture	Waste Storage Resource Recovery Waste Processing	-	2
General solid waste (non-putrescible)	Cured concrete waste from a batch plant	Waste Storage Resource Recovery Waste Processing	-	0.1
Unexpected finds	Unexpected finds of materials such as asbestos, tyres, batteries, gas bottles, fire extinguishers and food.	Waste Storage	Limited to waste identified during inspection and resource recovery operations being unexpected finds in tipped, unprocessed and processed material. Storage only for the purposes safe and lawful handling, storage and transport to a lawful facility.	0.1

APPENDIX B THREATENED FLORA SPECIES WITH POTENTIAL TO OCCUR ON-SITE

Scientific Name	Common Name	BC Act Status[2]	EPBC Act Status	Comments
Darwinia glaucophylla		Vulnerable		Occurs in heaths and woodlands, often in association with sandstone rock platforms. This species was identified in nearby areas by Parsons Brinckerhoff (2014). Closest record is approximately 1.3 km west of site. Some areas of potential habitat on site.
Epacris purpurascens var. purpurascens		Vulnerable		Grows in sclerophyll forest, scrubs and swamps on sandstone. Closest record is approximately 700 m west of site; moderate likelihood of occurrence.
Eucalyptus camfieldii	Camfield's Stringybark	Vulnerable	Vulnerable	Found in poor coastal country in shallow sandy soils overlying Hawkesbury sandstone. Coastal heath mostly on exposed sandy ridges. Closest record approximately 1.7 km north of site; moderate likelihood of occurrence.
Hibbertia procumbens	Spreading Guinea Flower	Endangered		Majority of known populations occur within Banksia ericifolia–Angophora hispida–Allocasuarina distyla scrub/heath on skeletal sandy soils. May also be found associated with 'hanging swamp' vegetation communities on sandy deposits. Flowers in summer. This species was identified in nearby areas by Parsons Brinckerhoff (2014).
Prostanthera junonis	Somersby Mintbush	Endangered	Endangered	Occurs in over weathered Hawkesbury sandstone within open forest/low woodland/open scrub. Found in both disturbed and undisturbed sites. Records of the species in adjacent site to east. This species has a high likelihood of occurrence on site.
Tetratheca glandulosa		Vulnerable		Strongly associated with areas of shale-sandstone transition. Where it occurs on ridgetops, upper-slopes and to a lesser extent mid-slope sandstone benches. Closest record is 3 km to south; moderate likelihood of occurrence.

[2] These assessments were undertaken prior to the repeal of the Threatened Species Conservation Act 1995, and were originally assessed under that Act. They are now listed under the BC Act and presented accordingly.

APPENDIX C THREATENED FAUNA SPECIES WITH POTENTIAL TO OCCUR ON-SITE

Scientific	Common Name	BC Act Status[3]	EPBC Act Status	Comments
Birds				
Apus pacificus	Fork-tailed Swift		Migratory Species	Could occur as a vagrant, mostly aerial species.
Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable		Potential foraging habitat, unlikely nesting habitat.
Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable		Potential foraging habitat, unlikely nesting habitat.
Cuculus optatus	Oriental Cuckoo		Migratory Species	Potential habitat present.
Daphoenositta chrysoptera	Varied Sittella	Vulnerable		Potential foraging/nesting habitat, though site contains mostly smooth-barked eucalypts. Species prefers rough-barked eucalypts.
Glossopsitta pusilla	Little Lorikeet	Vulnerable		Potential foraging and nesting habitat present.
Hirundapus caudacutus	White-throated Needletail		Migratory Species	Could occur as a vagrant, mostly aerial species.
Merops ornatus	Rainbow Bee-eater		Migratory Species	Potential foraging and nesting habitat present.
Monarcha melanopsis	Black-faced Monarch		Migratory Species	Potential migrating habitat present.
Ninox strenua	Powerful Owl	Vulnerable		Marginal foraging habitat present.
Tyto novaehollandiae	Masked Owl	Vulnerable		Potential foraging habitat. One hollow within the site that could be suitable for nesting/roosting.
Mammals				
Cercartetus nanus	Eastern Pygmy-possum	Vulnerable		Potential foraging/nesting habitat.
Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Endangered	Potential foraging habitat. Unlikely to be suitable for dens.
Miniopterus australis	Little Bentwing-bat	Vulnerable		Potential roosting/foraging habitat present. No breeding habitat present.
Miniopterus schreibersii oceanensis	Eastern Bentwing-bat	Vulnerable		Potential foraging habitat present. No breeding habitat present.
Mormopterus norfolkensis	Eastern Freetail-bat	Vulnerable		Potential roosting/foraging habitat present.
Potorous tridactylus tridactylus	Long-nosed Potoroo	Vulnerable	Vulnerable	Marginal habitat present.

[3] These assessments were undertaken prior to the repeal of the Threatened Species Conservation Act 1995, and were originally assessed under that Act. They are now listed under the BC Act and presented accordingly.

Scientific	Common Name	BC Act Status[3]	EPBC Act Status	Comments
Pseudomys novaehollandiae	New Holland Mouse		Vulnerable	Marginal habitat present.
Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Vulnerable	Potential foraging habitat. No roosting camps identified during site visit.
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable		Potential roosting/foraging habitat present.
Frogs				
Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Vulnerable	Nearby records of this species. Site supports potential foraging and sheltering habitat for this species.
Litoria littlejohni	Heath Frog		Vulnerable	Site supports potential foraging and sheltering habitat for this species.
Mixophyes iteratus	Giant Barred Frog	Endangered	Endangered	Site supports potential foraging and sheltering habitat for this species.
Pseudophryne australis	Red-crowned Toadlet	Vulnerable		Nearby records of species. Drainage lines unlikely to be suitable breeding habitat for species, though could forage on site.