

ENVIRONMENTAL IMPACT STATEMENT

Proposed Resource Recovery Facility

25 Martin Road Badgerys Creek NSW

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Certification Page

Schedule 2, Part 3, Cl. 6, EPA Reg's 2000

Submission of Environmental Impact Statement (EIS) prepared pursuant to NSW *Environmental Planning and Assessment Act 1979*

EIS prepared by:

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In Respect of:

Project: Erection and operation of a Resource Recovery Facility, together with associated structures and works

Applicant Name: Mulgoa Excavations Pty Ltd

Applicant Address: 122 Kingswood Road Orchard Hills NSW 2748

Land to be developed: 25 Martin Road Badgerys Creek
Lot 1 DP 611519

Environmental Assessment: An Environmental Impact Statement (EIS) is attached

Certification: I certify that I have prepared the contents of this Environmental Impact Statement (EIS) in accordance with the requirements of Schedule 2, *Environmental Planning and Assessment Regulation 2000*; the statement contains all available information that is relevant to the environmental assessment of the development / activity / infrastructure and to the best of my knowledge the information contained in the statement is neither false or misleading.

Signature:

Name: Jeffrey Bulfin
Date: March 2015

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PART A

EXECUTIVE SUMMARY

INTRODUCTION

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Executive Summary

The Proposal

The Proposal pertains to 25 Martin Road Badgerys Creek (Lot 1 DP 611519). In broad terms, the Proposal seeks approval to the erection and operation of a Resource Recovery Facility ('RRF'), including ancillary structures (amenities shed (lunch room), storage shed and weighbridge), associated civil and landscaping works.

The construction of the facilities, together with ancillary structures and associated works, will be undertaken more or less concurrently over an anticipated construction period of about 12 months.

The facility intends to have a total handling capacity of 60,000 tonnes per annum, comprising 50,000 tonnes of construction and demolition waste (including general solid waste) and 10,000 tonnes of greenwaste. Specific waste categories (with per annum tonnages broken down) are set out in **Table 4**.

The proposed facility will not receive putrescible waste, asbestos or any hazardous material.

The operation of the RRF involves trucks entering the site via the access point off Martin Road, travelling over the weighbridge and being directed to tip at a specific location. Sorting of the waste will initially be undertaken by hand, then machine where necessary. Material that cannot be re-used¹ will be separated and removed from the site to a licensed landfill facility. Material that can be re-used without processing at this site will be stockpiled, transferred and sold to an appropriate facility / location when volumes make such transportation viable. Material to be processed at this site will be separately stockpiled and processed on an 'as-need' basis.

The facility will not be open to the general public. Material received at the facility will come from projects at other locations being undertaken by the proponent.

The operational part of the proposed RRF will occupy about two-thirds of the land². The remaining one-third of the site contains a storage shed, manoeuvring and parking area and stormwater drainage structures. The two areas will be physically separated by an earth mound. Whilst the site has two road frontages, the facility will be accessed only via Martin Road.

In addition to the above, the proposal includes fencing and portable concrete barriers that will be positioned to create material bays. A weighbridge and portable lunch room and toilet will be installed at the facility. The toilet will be pumped out by the supplier at regular intervals.

Land Use Context

The site is rectangular in shape and comprises 2ha, with a frontage at its eastern end to Martin Road of 70.985 metres, a frontage at the western end to Lawson Road of 70.985 metres and a depth of approximately 281.75 metres.

¹ Estimated to be 5-10% of the total volume received

² Refer to plan at Annexure F

The land is contained in zone RU1 Primary Production, pursuant to Liverpool Local Environmental Plan 2008 (LLEP). Surrounding land uses include rural residential (including hobby farm activities), intensive plant agriculture (horticulture) and bulk storage / truck depot uses³.

Approvals Process

The proposal is designated development, based on the following clauses from the *Environmental Planning and Assessment Regulations 2000*.

- Sch 3, cl. 16(1)(b) – crushing, grinding or separating works that are located within 250 metres of a dwelling not associated with the development;
- Sch 3, cl. 32(1)(b)(iii) – Waste management facilities or works that store, process, recycle, recover, use or reuse material from waste and that sort, consolidate or temporarily store waste at transfer stations for transfer to another site for final disposal, permanent storage, recycling, use or reuse and that have an intended handling capacity of more than 30,000 tonnes per year of waste such as glass, plastic, paper, wood, metal, rubber or building demolition material
- Sch 3, cl. 32(1)(c) – Waste management facilities or works that store, treat or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and that recover, reprocess or process more than 5,000 tonnes per year of solid organic materials (in this case greenwaste);
- Sch 3, cl 32(1)(d)(ii) – Waste management facilities or works that store, treat, or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and that are located in an area of sodic or saline soils. NB the sodicity and saline levels in the soil exceed threshold levels (waste management facilities or works)

In the author's opinion, the proposal is not designated development on the basis of Sch 3, cl. 32(d)(vi), but that is a matter on which the consent authority must form an opinion.

The proposed facility is not permissible in the subject zone but is permissible pursuant to clause 121(1) and 121(2)(a) of SEPP (Infrastructure) 2007.

Project Justification

The proposed development will have overall benefits both environmentally and socially as it will contribute to the reduction of construction and demolition waste going to landfill through the recycling and reprocessing of this material, for resale back to the construction markets. This has the added benefit of reducing the dependence on extractive resources.

The proposed site is considered to be the best location for the development due to its proximity to the proponent's operational area and construction markets in major growth centres, where demand for the recycled product is high.

Statutory and Strategic Planning Framework

A comprehensive planning framework exists at State, Regional and Local Planning levels to ensure appropriate and sustainable development outcomes. The proposal has been assessed against such framework and is capable of achieving appropriate outcomes, subject to compliance with a comprehensive suite of management measures.

³ Refer to Figure 2

Stakeholder Engagement / Consultation

Secretary's Environmental Assessment Requirements (SEAR's) in respect of the proposal were issued on 12 September 2014⁴. The EIS seeks to address the matters raised therein.

A number of Government agencies were consulted by the Department of Planning and Environment (DPE) during the preparation of the SEARs. Such consultation sought to identify key issues for assessment and discuss specific issues relevant to the proposal. At the request of the SEARs, additional consultations were undertaken with additional agencies and service providers. This EIS seeks to be responsive to the matters raised during these consultations.

Local residents views have been canvassed via a targeted letterbox drop in the vicinity of the subject site⁵. The various matters raised during this process and conveyed to the applicant have been incorporated into this assessment. This EIS seeks to be responsive to the issues raised by local residents.

Consultations with Liverpool Council were undertaken by DPE during the preparation of the SEARs. This EIS seeks to be responsive to the matters raised by Council and contained in the SEARs.

Environmental Assessment

A comprehensive environmental assessment is undertaken within this EIS, addressing matters emerging from the input of stakeholders.

Issue	Action	Annexure	Discussion	Conclusion
Ecology	<i>Flora and Fauna Impact Assessment report</i>	'I'	Section 11	<i>Certified</i>
Aboriginal Cultural Significance	<i>Due Diligence Assessment</i>	'J'	Section 12	<i>No constraint</i>
European Heritage	<i>No further action</i>	N/A	N/A	<i>No constraint</i>
Acoustic Amenity	<i>Acoustic Assessment report</i>	'K'	Section 13	<i>Satisfactory subject to mitigation measures</i>
Traffic and Transport	<i>Traffic Impact Assessment report</i>	'L'	Section 14	<i>No constraint</i>
Air Quality	<i>Air Quality Assessment report</i>	'M'	Section 15	<i>Satisfactory subject to mitigation measures</i>
Visual Impact	<i>Visual Impact Assessment report</i>	'S'	Section 16	<i>Satisfactory subject to mitigation measures</i>
Community and Economic Effects	<i>Assessment</i>	N/A	Section 18	<i>Positive impacts</i>
Contamination	<i>Preliminary Environmental Site Assessment with preliminary soil testing</i>	'N'	Section 19	<i>Satisfactory following removal of bonded asbestos</i>

⁴ Refer to Appendix 'A'

⁵ Refer to Appendix 'C'

Soil and Water Management	<i>Water Cycle Management Study</i>	'O'	Section 20	<i>Satisfactory subject to mitigation measures</i>
Waste Management	<i>Assessment</i>	N/A	Section 21	<i>Satisfactory</i>
Soil Investigation	<i>Assessment</i>	'P'	Section 4.6	<i>Satisfactory</i>

Table 1

Summary of environmental impact investigations

Approvals and Licenses

Part F of this EIS identifies the relevant licenses and approvals required for this proposal.

Mitigation Measures

Following scoping of issues and assessment of impacts, Part G of this EIS provides a separate summary of mitigation measures proposed by this EIS.

Relevant Acts, Environmental Planning Instruments and Strategic Policies

Part H of this EIS provides an assessment of the proposal in terms of the requirements of State, Regional and Local plans and policies, as well as strategic documents and various Acts.

Broadly, the proposal has been designed to be consistent/compliant with all applicable Acts, Instruments and Policies.

Ecologically Sustainable Development

The subject Proposal has been evaluated against the principles of Ecologically Sustainable Development, as enunciated in the objectives of the EP&A Act.

The Proposal is revealed to be sustainable in terms of:

- The acceptability of risks;
- Protection of ecological integrity and biodiversity;
- Social equity considerations;
- A precautionary approach to analysis, management and monitoring of impacts and risks on the environment; and
- The decision making process.

ESD issues are discussed in **Section 34** of this EIS.

Justification and Conclusion

It is concluded that the facility as proposed is justifiable and can operate in a manner that avoids surrounding land use conflicts, as evidenced by the outcomes of the various specialist reports, subject to implementation of mitigation and management measures.

1. Introduction

1.1 Overview

1.1.1 Background to the Proposal

This Environmental Impact Statement (EIS) has been prepared as an accompaniment to a Designated Development Application, which seeks approval to construct and operate an RRF at the site, situated at 25 Martin Road Badgerys Creek (Lot 1 DP 611519).

Subject to mitigation measures outlined in the specialist reports attached to this EIS, the proposed RRF will not generate any unreasonable or unacceptable amenity impacts for nearby dwellings and other land uses.

1.1.2 The Proponent

The Proponent for this facility is Mulgoa Excavations Pty Ltd. The owners of the subject site are Daniel Steven Buttigieg and Tracey Buttigieg, who are also the directors of Mulgoa Excavations Pty Ltd.

The proponent is an established business, undertaking excavation and demolition work across greater Western Sydney. The use of the subject site as a RRF will provide a centrally located facility to sort construction and demolition waste, general solid waste and greenwaste and process recovered waste for re-use at other sites.

It is intended that the facility be used predominantly by the proponent, occasionally receiving waste from other contractors. It is not intended that the facility be open to the public. The RRF will not accept putrescible, hazardous or contaminated waste.

1.1.3 Project Location and Site Context

The subject site is located between Martin Road on the east and Lawson Road on the west, oriented east-west. The locality lies centrally between Badgerys Creek and Kemps Creek, close to Elizabeth Drive. Surrounding land uses are predominantly made up of intensive horticulture, industrial-type storage, rural residential and the like. In the locality generally is a large waste facility, a concrete batching plant, a landscape material yard, which includes processing of the material, as well as other uses of an industrial nature.

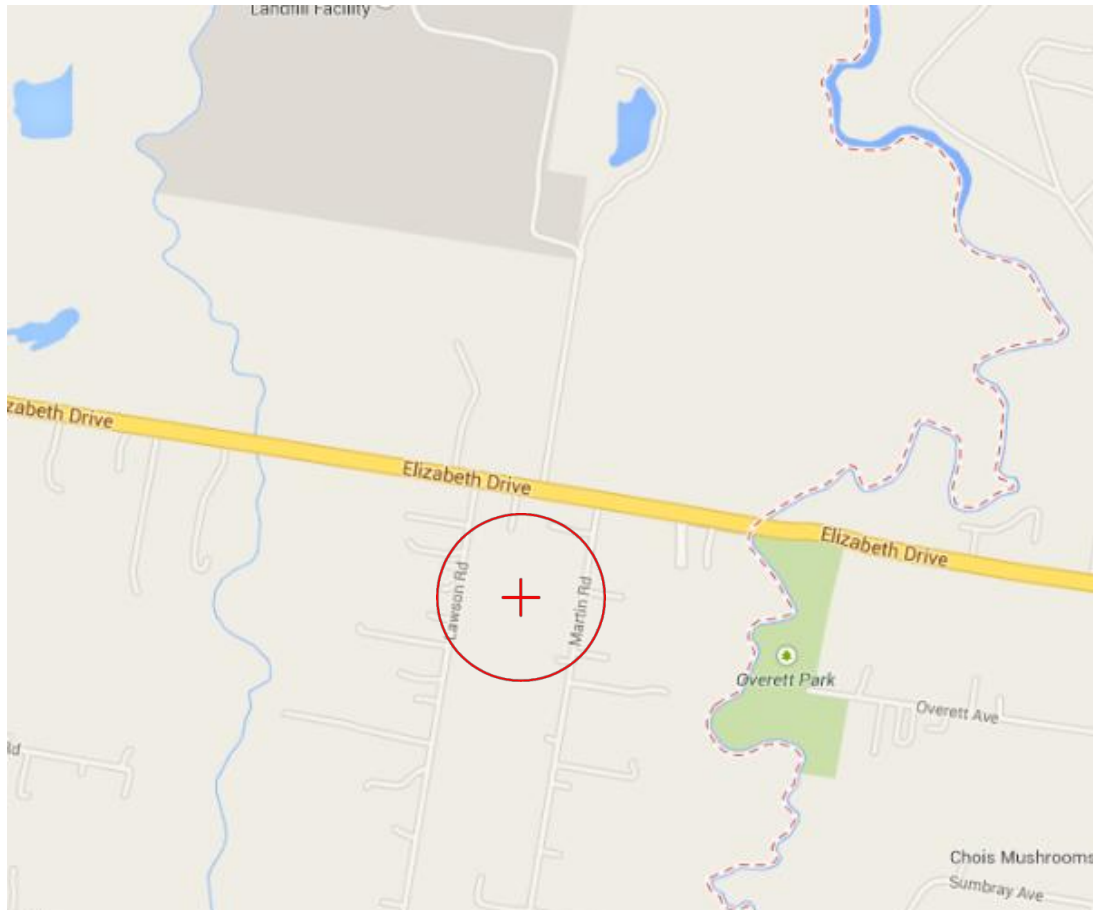


Figure 1
Site location

The subject site lies under the flight path for the proposed Badgerys Creek airport.

The subject site is currently used for storage of demolition materials. It slopes marginally to the southwest corner and contains some regrowth vegetation in this corner. Whilst the site has frontage to Martin Road and Lawson Road, it has a constructed access only from Martin Road. The boundaries are fenced partially by an acoustic fence and partially by a post and wire fence.

There are no dwellings or structures erected on the site.

1.2 Approvals process

The proposal is “designated development” for the purposes of the EPA Act 1979 and requires development consent. Secretary’s Environmental Assessment Requirements (SEARs) were issued on 12 September 2014.

The site is contained within an RU1 Primary Production zone pursuant to Liverpool Local Environmental Plan 2010 (LLEP 2008).

The proposed RRF is prohibited development in the RU1 zone pursuant to LLEP 2008. However, State Environmental Planning Policy (Infrastructure) 2007 (SEPP (Infrastructure) 2007) is invoked to enable the proposed development in the zone. Part 1, Clause 8 of SEPP (Infrastructure) 2007 provides that in the event of an inconsistency between itself and any other Environmental Planning Instrument (EPI), the SEPP will prevail to the extent of the inconsistency. Therefore, in this circumstance, the proposed RRF is made permissible by the SEPP (Infrastructure) 2007, notwithstanding it is prohibited by LLEP 2008.

The application is 'Integrated' Designated Development, as it triggers requirements pursuant to s.91 *EPA Act 1979*, requiring approval from Environment Protection Authority (EPA). Specifically, the requirements are contained in s.48 and Schedule 1, clauses 16(2), 34(3), 41(3), 42(3), *Protection of the Environment Operations Act 1997* (POEO Act). "Composting", as defined in Sch 1, cl.12(1) POEO Act, is not an activity proposed to be undertaken at this facility, therefore the requirements of Sch 1, cl.12(2) will not apply⁶.

1.3 Project Need

The proponent undertakes demolition and excavation work across greater Western Sydney. Currently, the proponent has no opportunity to capitalise on the opportunity to recover materials from demolition projects. Waste is generally transported to an appropriate alternative waste disposal site, which results in significant additional travel kilometres in heavy vehicles.

Economically, the proposed RRF will provide vertical integration for the proponent, which will lower costs and increase opportunities for resource recovery.

1.4 Environmental Assessment Team

This EIS has been prepared by Precise Planning on behalf of Mulgoa Excavations Pty Ltd (the Company), with specialist input provided by the following organisations/specialists:

- **Wilkinson Murray** – Acoustic Report
- **Todoroski Air Sciences** – Air Pollution Assessment
- **Martens Consulting Engineers** – Contamination Assessment, Soil Testing, Stormwater Management
- **Woodlands Environmental Management** – Ecology (Flora and fauna)
- **Artefact** – Aboriginal Archaeology
- **Parking and Traffic Consultants** – Traffic Impact Assessment
- **HLS Pty Ltd** – Visual Impact Assessment
- **Eco Planning** – Bird Strike risk assessment

1.5 Structure of the Environmental Impact Statement

An overview of the structure of the EIS is provided over the page:

⁶ Whilst chipping and mulching of greenwaste is proposed at the facility, it is not for the purposes of the biological conversion of organics. Therefore, the composting process will not occur at the site.

PART A

- **Executive Summary** provides a brief overview of the Proposal, its planning context, the major outcomes of the environmental assessment and an outline of key mitigation measures proposed;
- **Section 1** introduces the Proposal, outlines the background to the Proposal, provides an overview of the approvals process and project need, documents the assessment team, and outlines the structure of the EIS and provides a compliance table for Schedule 2, Part 3, Clause 7 EPA Regulations 2000;

PART B

- **Section 2** outlines the objective of the proposal
- **Section 3** describes the proposal;

PART C

- **Section 4** provides a detailed description of the site;
- **Section 5** describes alternatives to the proposal;

PART D

- **Section 6** outlines the stakeholder engagement in the process;
- **Section 7** considers relevant government guidelines to help identify issues;
- **Section 8** lists the specialist studies commissioned in response to the issues identified
- **Section 9** provides a summary of the outcomes of the issue scoping process

PART E

- **Section 10** outlines a structure for the assessment of various environmental issues
- **Sections 11 to 22** provide a summary of the detailed assessment of each issue identified

PART F

- Provides a tabulated list of approvals / licenses/ permits sought

PART G

- Provides a summary of proposed mitigation and measurement measures identified in Part E, including environmental management and monitoring baselines

PART H

- **Section 32** identifies and assesses the proposal against the statutory planning framework

- **Section 33** identifies the relevant strategic framework

PART I

- **Section 34** provides a discussion of the proposal in the context of ESD principles

PART J

- **Section 35** provides a justification and conclusion
- **Section 36** provides a list of abbreviations used in this EIS
- **Section 37** provides a reference list for documents referred to in this EIS

1.6 Compliance with Schedule 2, part 3, cl. 7, EPA Reg's 2000

EPA Regulation 2000, Sch 2, Pt 3, Cl 7, subclause (reference)	Requirement	EIS reference
1 (a)	<i>Summary of the EIS</i>	<i>See Executive Summary – p 11</i>
1 (b)	<i>Statement of the objectives of the development, activity or structure</i>	<i>Section 2; p 22</i>
1 (c)	<i>Analysis of feasible alternatives including consequences of not carrying out the development or activity</i>	<i>Section 5; p 37</i>
1 (d) (i)	<i>A full description of the development, activity or infrastructure</i>	<i>Section 3; p 22</i>
1 (d) (ii)	<i>A general description of the environment likely to be affected by the development, activity or infrastructure; a detailed description of those aspects of the environment likely to be significantly affected</i>	<i>Section 9; p 52</i>
1 (d) (iii)	<i>The likely impact on the environment of the development, activity or structure</i>	<i>Section 11 to 22; p 56 – p 82</i>
1 (d) (iv)	<i>A full description of the measures proposed to mitigate any adverse effects of the development, activity or structure on the environment</i>	<i>Section 11 to 22; p 56 – p 82</i>
1 (d) (v)	<i>A list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out</i>	<i>Part F; p 83</i>
1 (e)	<i>A compilation (in a single section of the EIS) of the measures referred to in 1(d)(iv)</i>	<i>Part G; p 85</i>
1 (f)	<i>The reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations including the principles of ESD</i>	<i>Part I; p 125 Part J; p 129</i>

4 (a)	<i>Precautionary principle</i>	<i>Section 34.2; p 126</i>
4 (b)	<i>Inter-generational equity</i>	<i>Section 34.3; p 127</i>
4 (c)	<i>Conservation of biological diversity and ecological integrity</i>	<i>Section 34.4; p 127</i>
4 (d)	<i>Improved valuation, pricing and incentive mechanisms</i>	<i>Section 34.5; p 127</i>

Table 2

Compliance with Schedule 2, part 3, cl. 7, EPA Reg's 2000

PART B

THE PROPOSAL

2. Objective of the Proposal

The principle objective of this proposal is to provide a more convenient opportunity for the proponent to increase resource recovery through the establishment of a facility on the subject site that will result in minimal environmental impact, is visually unobtrusive and provides convenient access to growth areas within the local area.

3. Description of the Proposal

3.1 General

The proposal is for the erection and operation of a RRF as well as ancillary structures such as a weighbridge with attached office, portable lunch room and WC, a storage shed, fencing and landscaping works and stormwater management structures.

A. Resource Recovery Facility (erection and operation)

*A **Resource Recovery Facility** is defined as 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 incineration⁷*

The proposed **erection** of the Resource Recovery Facility comprises the following on-site works:-

- Structures as depicted on the plans (see **Appendix 'F'**) and further described in this report
- Weighbridge with attached office
- Removal of a small number of isolated trees
- Stormwater management structures (see **Appendix 'O'**)
- Fencing as shown on the Landscape plan (see **Appendix 'G'**)
- Landscaping as shown on the plans (see **Appendix 'G'**)
- Portable lunch room and WC
- Storage shed (see **Appendix 'H'**)

The proposed **operation** of the Resource Recovery Facility comprises:-

- Dumping, sorting and separating of waste (as detailed in this EIS)

⁷ Defined by SEPP (Infrastructure) 2007 and LLEP 2008

- Removal of waste material to final destination
- Recovery and recycling of material (including temporary storage and sale of recovered resources by wholesale – that is, not on-site retail)
- Processing of concrete, bricks and the like by crushing for reuse off site (including temporary storage and sale of recovered resources by wholesale – that is, not on-site retail)
- Processing of green waste by mulching and chipping for reuse off site (including temporary storage and sale of recovered resources by wholesale – that is, not on-site retail)

3.2 Construction Program

The timing of commencement of construction of this facility is dependent upon obtaining the necessary approvals, including Construction Certificates for the various works proposed.

The following is an estimate only:

- Month 1 – Written advice to surrounding landowners, site establishment, work sheds, construction fencing, implementation of erosion and sediment control structures.
- Month 2 and 3 – Earthworks, installation of final boundary fencing, clearing of vegetation, installation of drainage structures, installation of precast concrete dividing walls for material bays
- Month 4 – Installation of weighbridge, portable lunch room and WC, construction of storage shed, landscaping.
- Month 5 - Commissioning

The above program is indicative and does not account for delays, including inclement weather, supplier delays and the like.

3.3 Plans of Operation

The following Table sets out the plans submitted with the application:

Document Type	Author / Prepared By	Reference	Dated	Appendix
<i>Plan of proposed site works</i>	<i>Sydney Land Surveyors</i>	<i>SLS104 Amendment B</i>	<i>1 December 2014</i>	<i>'F'</i>
<i>Water Cycle Management Study</i>	<i>Martens and Associates</i>	<i>P1404242JR03V01</i>	<i>December 2014</i>	<i>'O'</i>
<i>Architectural plan for storage shed</i>	<i>Briffa Design</i>	<i>125/15</i>	<i>February 2015</i>	<i>'H'</i>
<i>Landscape Plan</i>	<i>HLS Pty Ltd</i>	<i>Job No 09129 Issue P3</i>	<i>5 November 2014</i>	<i>'G'</i>

Table 3
Plans of the Operation

3.4 Waste Stream, Volumes, Categories and On-Site Procedures

The proposed waste categories and volumes are shown in **Table 3** below:

Waste Category	Design capacity estimate per annum (receiving)	Potential sources
Construction and Demolition waste (incl general solid waste)	50,000 tonnes	Construction sites, demolition sites
Greenwaste	10,000 tonnes	Landscaping activities, construction sites, demolition sites
TOTAL	60,000 tonnes	

Table 4
Waste Categories and Volumes

The proposed handling procedures are outlined in Table 5 below

Categories	On-site procedure	Temporary storage arrangement
Construction and Demolition Waste	<i>Pass over weighbridge to temporary storage area for sorting to unload. Initial sorting by hand to isolate non-recoverable waste, which will be stored at the location indicated on the plans and transported to landfill. Recoverable waste will be sorted as required and temporarily stored at the location indicated on the plans. Crushable masonry will be moved by machine to the location of the crusher. The crusher is a mobile plant, which can be manoeuvred within the work area to maximize efficiency. Other recoverable material will be transported to a location that specialises in the specific material collected. Final crushed material will be stored in the material bays until sold, when it will then be transported to its final destination. Any general solid waste will be sorted by hand and dealt with using the above procedures</i>	<i>The recovered resources will be stored in material bays or other nominated stockpile locations</i>
Greenwaste	<i>Pass over weighbridge to one of the stockpile areas. Greenwaste will be loaded into chip/mulch machine for processing, then deposited by machine to the stockpile area or a material bay, when it will then be transported to its final destination. The chipper is a mobile plant, which can be manoeuvred within the work area to maximize efficiency.</i>	<i>Stockpile no greater than 3m high and bunded to prevent runoff into stormwater system or dispersion of chipped/mulched material over the ground (Appendix 'O').</i>

Table 5
Waste Handling Procedures

The facility expects deliveries inbound and outbound by semi trailers, truck and dog and tipper trucks. B Double vehicles are not expected to use this facility.

3.5 Resource Recovery

NSW Waste Avoidance and Resource Recovery Strategy 2007

The NSW Waste Avoidance and Resource Recovery Strategy 2007 set state-wide targets for 2014. These are: an increase in recycling of municipal waste from baseline 26% to 66% in 2014; increased recycling of commercial and industrial waste from baseline 28% to 63% in 2014 and increased recycling of construction and demolition waste from baseline 65% to 76% in 2014.

This proposed facility will assist to achieve these targets through increased incentives and convenience for the proponent to recover resources. The NSW Waste Avoidance and Resource Recovery Strategy is considered in greater detail in Section 7.1 of this EIS.

The table below outlines the main types of resources likely to be recovered at the facility, together with comments.

Waste Type	Main Types of Resources Recovered
Construction and Demolition Waste	<i>Concrete – processed on site for aggregate</i> <i>Bricks – processed on site for aggregate</i> <i>Roof Tiles – processed on site for aggregate</i> <i>Timber – sorted for reuse/resale</i> <i>Glass – sorted for reuse/resale</i> <i>Steel and metal – sorted for reuse/resale</i> <i>Tyres – sorted for reuse/resale</i> <i>Clean fill – stored onsite for resale</i>
General solid waste	<i>Typical household waste – sorted for reuse/resale</i>
Greenwaste	<i>Trees – processed on site for mulch</i> <i>Shrubs – processed on site for mulch</i> <i>Foliage – processed on site for mulch</i> <i>Grass – processed on site for mulch</i>

Table 6
Resource Recovery detail

3.6 Rehabilitation

This proposal does not involve landfill and therefore no rehabilitation is required.

3.7 Site Drainage and Contamination Controls

A Water Cycle Management Strategy ('WCMS') has been prepared for this proposal (see **Appendix 'O'**) detailing management (quality and quantity) of stormwater.

No liquid or putrescible waste will be received by this facility. Therefore, there will be no washdowns required and no opportunity for contamination of the earth.

The location of the greenwaste stockpile will be surrounded with an earth bund to prevent runoff into stormwater system or dispersion of chipped/mulched material over the ground.

3.8 Major Machinery

The major machinery required for this proposal are estimated to be:

- Front end loader
- Excavator (for sorting and shifting purposes, not to dig into the ground)
- Concrete / brick crusher (mobile)
- Green waste chipper / mulcher
- Weighbridge

3.9 Number of Employees

It is envisaged that the facility will employ a total of 2 people on an as needs shift basis. An employee responsible for site supervision will be present at all times during hours of operation.

3.10 Hours of Operation

Land Use / Activity	Proposed hours of operation
Transportation of material (inbound and outbound)	<i>Monday to Friday 7am to 5pm Saturday 8am to 2pm</i>
Chipping / mulching of greenwaste	<i>Monday to Friday 8am to 4pm</i>
Crushing / grinding of concrete/bricks etc	<i>Monday to Friday 8am to 4pm</i>

Table 7
Hours of Operation

3.11 Access Arrangements – Truck Routes, Traffic Generation

The site has a frontage to both Martin Road and Lawson Road. However, this facility will utilise Martin Road exclusively for access, with Lawson Road potentially able to be used in an emergency only.

Martin Road intersects with Elizabeth Drive, which will receive and funnel traffic to and from the site.

Anticipated traffic generation arising from the proposed facility is examined in detail in the traffic report (see **Appendix 'L'**) and summarised in **Part E, Section 14** of this EIS.

3.12 Daily Operational Plan

A draft Operational Plan of Management (OPM) has been prepared and is located at **Appendix 'Q'**. The draft OPM outlines basic procedures for the daily operation of the facility.

3.13 Security, Fire Fighting and Counter Disaster Provisions

Security principles at the site are proposed as follows:-

- Ensuring the site is always attended during operating hours
- Education for weighbridge operators / attendants to analyse loads for non compliances
- Monitoring and reporting procedures for illegal loads
- Secure fencing around the extent of the facility
- Lockable gates
- Regular security patrols
- No cash or valuables left at the site

Firefighting appliances will be installed to comply with relevant standards, specifically Building Code of Australia (BCA). The facility will be connected to mains pressure reticulated water.

Storage of rubber tyres will comply with the NSW Fire Brigades *Guidelines for Bulk Storage of Rubber tyres – Policy No 2 (2009)*.

Emergency Response Plan

An Emergency Response Plan (ERP) will be prepared for the facility, to be submitted with the Construction Certificate application. The ERP will be based on the structure recommended by NSW Fire Brigades in its document entitled NSW FIRE BRIGADES RECOMMENDED EMERGENCY PLAN FORMAT & CONTENT.

The ERP will broadly follow the following format:

Section 1 -	Plan Title and Authority
Section 2 -	Plan Text <ul style="list-style-type: none"> ▪ Table of Contents ▪ Distribution List ▪ Amendment ▪ Glossary and Abbreviations
Section 3 -	Introduction <ul style="list-style-type: none"> ▪ Facility Description ▪ Definitions of Situations Covered
Section 4 -	Aims and Objectives of the Plan <ul style="list-style-type: none"> ▪ Aim ▪ Objectives
Section 5 -	Hazardous Materials – Manufactured, stored or used on-site
Section 6 -	Types of Emergencies (eg. Fire, explosions, spills, gas leaks, natural events, impact events, civil disturbances, any others)
Section 7 -	Response <ul style="list-style-type: none"> ▪ Initial response ▪ Internal emergency resources <ul style="list-style-type: none"> a) Firefighting Equipment b) First aid equipment c) Fire suppression mediums such as foam stocks d) Fire teams e) Specialist equipment (e.g. Front end loaders, forklifts etc) • Principles <ul style="list-style-type: none"> a) Containment b) Rescue c) Evacuation d) First Aid
Section 8 -	Activation of an alarm or raising the alarm <ul style="list-style-type: none"> ▪ Raising the alarm ▪ Notification of authorities and adjacent facilities
Section 9 -	Procedure for terminating an emergency
Section 10 -	Compatibility with emergency services incident management plans
Section 11 -	Administration

- Public relations and debriefing
- Statutory investigation
- Written report and review of the plan – post incident

Section 12 - Appendices

- Training and evaluation
- Contact telephone numbers of key personnel

Section 13 - Location map

Section 14 - Site layout plan

Section 15 - Manifest of dangerous goods

Section 16 - Material safety data sheets

Additional fire emergency procedures are identified in the Operational Plan of Management (**Appendix 'Q'**)

3.14 Landscaping

Proposed landscaping is shown on the plans at **Appendix 'G'**.

3.15 Effluent disposal

It is proposed to have a portable toilet on the site for employees, which will be emptied on a regular basis. There will be no onsite disposal of effluent.

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PART C

THE LOCATION

4. Site Description (existing)

4.1 Real Property Description/Identification/Tenure

The site is known as 25 Martin Road Badgerys Creek. The title details are Lot 1 DP 611519. The area of the site is 2ha, with a frontage to Martin Road on the east and Lawson Road on the west, of 70.985m and a depth of 281.75m⁸. The subject land is registered in the ownership of Daniel Steven Buttigieg and Tracey Buttigieg.

The site includes perimeter fencing but it is otherwise vacant of development.

4.2 Climate Data

Bureau of Meteorology's Badgerys Creek Automatic Weather Station (Site no 067108) is approximately 4km southwest of the site.

Over a 15 year period, the following data has been extracted:

- The hottest month is January, with a mean maximum temperature of 29.9°C
- The coldest month is July, with a mean minimum temperature of 4.2°C
- The wettest month is February, with an average rainfall of 108mm over 7.8 days
- The driest month is July, with an average rainfall of 23mm over 3.4 days
- Mean 9am humidity levels range from 62% in October to 84% in June
- Mean 3pm humidity levels vary from 44% in August / September to 56% in June
- Mean 9am wind speeds range from 8.4km/h in March to 11.8km/h in October
- Mean 3pm wind speeds range from 13.7km/h in June to 19.9km/h in October

Detailed climatic information is tabled in the Air Quality report at **Annexure 'M'**.

4.3 Topography

Levels over the site related to AHD are shown on the site plan by Sydney Land Surveyors (**Appendix 'D'**). There is nothing particularly noteworthy or distinctive about the contours and levels. The main site generally slopes down towards the southwest corner north at an average grade of about 2.5%.

4.4 Surrounding Land Uses

Figure 2 identifies surrounding land uses.

⁸ Refer to Site plan (Annexure 'D')



Figure 2
Indication of surrounding land uses

The proximity of dwellings not associated with this proposal are detailed on the plan at **Annexure 'E'**.

4.5 Geomorphology

The Penrith 1:100,000 Geological Series Sheet 9030 (1991) indicates that the site is underlain by Bringelly Shale, which comprises shale, carbonaceous claystone, claystone, laminite, fine to medium grained lithic sandstone and rare coal/tuff. The Penrith 1:100,000 soil landscapes sheet 9030 (1989) indicates site soils belong to the Blacktown soil landscape consisting of shallow to moderately deep (<1 m) hardsetting mottled texture contrast soils, red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and in drainage lines. Previous sub-surface investigations to 4.5 m depth found the natural soil profile to typically consist of silty clay with clay overlying shale and siltstone at depth in most areas. Investigations indicated some areas of fill typically consisting of sandy clay, clay and silty clay overlying shale at depth.

4.6 Soil Types and Properties

4.6.1 Soil description

The Environmental Site Assessment ('**ESA – Soils**') prepared by Martens and Associates (**Appendix 'P'**), describes the soils as follows:

Sub-surface investigations to 4.5 m depth found the natural soil profile to typically consist of silty clay with clay overlying shale and siltstone at depth in most areas (Table 2). Fill material was observed during test pitting and borehole investigations at variable depths across the site. Granular fill was observed across the eastern portion of the site (up to 0.5 mbgl) while deeper clay fill was observed in the south eastern section of the site identified as containing a former farm dam. Fill material was identified in the western portion of the site consisting of silty clay. Fill material across the site was free of non soil material inclusions.

4.6.2 Water table

Section 4 of the ESA - Soils (**Appendix 'P'**) deals with hydrogeology.

Section 4.4 of the ESA - Soils details that two monitoring wells were installed as part of Martens investigations for its report. Groundwater levels at these locations were monitored over two separate monitoring periods. The minimum depth of groundwater at the location called 'GW1' ranges from 3.84m to 3.9m. The minimum depth of groundwater at the located called 'GW2' ranges from 2.19m to 2.79m (see Tables 10 and 11 of the Martens report).

In terms of groundwater quality, testing revealed high electrical conductivity, indicating that site groundwater is brackish (high salinity). The ESA – Soils notes that this is common in shale geology and consistent with regional groundwater findings for Badgerys Creek.

Minimal impact from the proposed development is expected to the identified perched groundwater system below the site. A reduction in groundwater levels may occur due to reduced infiltration in added paved and hardstand areas, however given the naturally low permeability of naturally overlying clays, this impact is expected to be negligible. There is a possibility of potential groundwater contamination sources being introduced to the site with the importation of building and demolition waste. Proposed engineered surface water drainage system and lined water quality treatment measures shall prevent potential contaminants being leached to groundwater.

At section 4.9, the ESA - Soils concludes its discussion on groundwater as follows:

Groundwater encountered during subsurface investigations is considered to be a discontinuous perched water bearing unit and is not expected to be hydraulically connected to any regional aquifer or water bearing unit. Surface runoff shall be managed via grass swales and a lined water quality retention basin which will prevent possible infiltration of potentially contaminated surface run off water.

There is no evidence of site or other local beneficial use (irrigation, potable water etc.) of encountered shallow perched water bearing zones beneath the site, likely due to their brackish nature.

Heavy metal levels have been identified above 95% trigger values in perched water bearing zone, which may be attributed to natural sources or surrounding agricultural land use. As no beneficial use of this shallow perched zone has been identified, and the unlikely connection of this to any receiving waters, elevated heavy metal levels are not considered to be a significant concern which would impact on the proposed development or future site users.

4.6.3 Soil Permeability

Hydraulic conductivity testing was completed by Martens for the site's weathered shale/mudstone geology and overlying gravely clay fill material using slug testing at groundwater well locations, and falling head tests in shallow test pits to characterise fill material. Testing results are summarised in Table 13 of the ESA - Soils. Due to the heterogenous nature of fill and variable compaction levels of the fill material, falling head testing found a large amount of variance within the data. Generally, well compacted fill material, like that observed on the site, is expected to have low k values due to the cohesive fill material and well graded characteristics. Slug testing of site weathered rock returned very low permeability values.

4.6.4 Acid Sulphate Soils

Intrusive investigations and site geomorphology indicates that the site contains residual soils derived from in-situ weathering of underlying Bringelly Shale. No significant excavation or dewatering is proposed for the development. As such the proposed site works do not present an acid Sulphate soil risk to the proposed development and no further assessment is necessary.

4.6.5 Soil Sodicity

Twelve samples were tested for cation exchange capacity (CEC) and exchangeable sodium percentage (ESP), which is an indicator of sodicity. Soils with high sodicity are dispersive and prone to: surface crusting; low infiltration and hydraulic conductivity; gully and tunnel erosion; and restricted root growth. ESP results indicate generally non-sodic surface soils, with some sodic and highly sodic soils at depth (refer to Table 6 of the ESA – Soils).

Details of samples rated as 'sodic' or 'highly sodic' are as follows:

Sample site	Soil Type	ESP (%)	Sodicity class
4242/106/1.5	Clay	9	Sodic
4242/106/2.0	Clay	18	Highly sodic
4242/108/1.0	Clay	8	Sodic
4242/108/1.5	Clay	17	Highly sodic
4242/108/2.0	Clay	18	Highly sodic
4242/109/1.0	Clay	6	Sodic
4242/110/1.0	Clay	8	Sodic
4242/110/1.5	Clay	16	Highly sodic
4242/110/2.0	Clay	16	Highly sodic

Table 8

Results for Sodicity

The sodic soils are unlikely to present any issue for the type of development proposed. Therefore, no specific mitigation measures for soil sodicity are contemplated by this EIS.

4.6.6 Salinity

The 1:100,000 Salinity Potential in Western Sydney map (DNR, 2002) indicates that the site is located in an area of moderate salinity potential, which is defined as:

Scattered areas of scalding and indicator vegetation have been noted in this zone, but no saline soils have been mapped. Saline areas may occur in this zone, which have not yet been identified or may occur if risk factors change adversely.

Although the regional evidence indicates that the site is in a locality with moderate salinity potential, local variations can occur and the particular subject site may experience greater or lesser potential than that identified by the regional mapping. Subsequently, an onsite assessment has been undertaken as part of the ESA – Soils.

The ESA – Soils field investigations did not find any site signs of existing salinity impacts:

- *Vegetation growth appeared mostly healthy and uninhibited.*
- *There were no water marks found or salt crystals on the ground's surface.*
- *Site surface drainage appeared generally good at the time of inspection. However, we note that dry weather conditions preceded the site inspection, and at times of rainfall, drainage may be somewhat inhibited by the site's low slopes.*
- *There is no onsite irrigation.*
- *One area of surface water/ponding was observed along the northern boundary where the neighbouring dam discharges.*

Soil testing undertaken for the ESA - Soils reveal that the site's silty clay fill topsoil is non to slightly

saline whilst the underlying natural clays range from non to moderately saline.

Soils with an ECe value of greater than 4ds/m could lead to effects on plants and buildings (DLWC, 2002). Two of the samples tested have ECe values of > 4 dS/m (BH4242/110/1.5 - 4.2 dS/m and BH4242/110/2.0 - 6.86 dS/m). In accordance with AS3600 (2009), exposure classification for concrete (Table 5) ranges from 'A1' to 'A2' and should be considered for future slab designs. Landscape species should be shallow rooted where appropriate.

4.7 Availability of Services

Reticulated water, overhead electricity and telecommunications services infrastructure is currently available in Martin Road. Reticulated sewerage is not available in the area. It is proposed to utilise a portable WC for this project, given the low number of users and because it will not be open to the general public. Consequently, there will be no onsite disposal of effluent.

Reticulated natural gas is not available to the main site and it is unlikely to be required for this proposal.

4.8 Accessibility of the Site

Access to the main site is not constrained by seasonal variants such as flooding.

The site is accessible via Elizabeth Drive (classified road) and Martin Road. Northern Road and the M7 motorway are proximate to the site.

It is considered unnecessary to undertake any road or intersection upgrading for this facility.

5. Alternatives to the Proposal

5.1 Alternative Local Sites

Part of the development process requires the consideration of alternative sites. In addition, Section 5(c) of SREP 20⁹ requires the consent authority to consider alternative sites in the assessment of applications. The following information is provided to assist this process.

⁹ Now referred to also as Deemed State Environmental Planning Policy No 20

It is not economically or practically feasible to analyse every site in the area with potential to accommodate the proposed facility. The proponent, prior to purchasing the subject land, gave consideration to a number of sites. The primary considerations for suitability included:

- Sufficient area to accommodate the proposed use;
- Lack of ecological constraint;
- Minimal impact on adjoining land owners;
- Future industrial use;
- Convenient access to major transport routes;
- Centrally located to the proponent's business operations;
- Price

The subject site was the most viable of all the sites considered.

5.2 Alternative of Not Proceeding

If this proposal were not to proceed:

- An important infrastructure facility would, for the time being at least, remain unbuilt. The existence of the facility such as is an important component for the efficient operation of the proponent's business, as well as assisting with the orderly management of waste, in particular resource recovery.
- prevent the local economic benefits (employment, increased economic activity and utilization of local shops and services) from flowing to the area.
- the anticipated significant reduction in waste to landfill would not be realised
- the anticipated increase in resource recovery and re-use of waste products would not be realised
- there would be a reduced likelihood of State government's resource recovery targets being realised¹⁰
- a small ripple effect would be felt by local construction trades and companies, as well as materials suppliers. Further, positive multiplier effects would not be realised.

5.3 Site Selection Process

The broad site selection criteria for the proposal were broken into 4 categories, viz:

¹⁰ As set out in the document *NSW Waste Avoidance and Resource Recovery Strategy (2007)*, DECC

- Planning
- Technical
- Environmental
- Community and Social

The *Handbook for Design and Operation of Rural and Regional Transfer Stations* sets out criteria for each of the above categories. The table below sets out the aforementioned categories, as well as the suggested criteria. It also provides information and commentary as to how each criterion has been addressed / considered in this proposal.

The following table provides an analysis of the main site based on the criteria set out in the Handbook.

Category	Criterion	Comment
Planning	Appropriate zoning	<i>The RRF is not a permissible use under Liverpool LEP 2008. However, the RU1 zone is a “prescribed zone” pursuant to SEPP (Infrastructure) 2007 for Waste or Resource Management Facilities and therefore the SEPP acts to enable the development in the RU1 zone.</i>
	Land ownership	<i>The site is privately owned. The proposed RRF will be privately owned and operated</i>
	Available buffers	<i>The available buffers to surrounding sensitive receivers (dwellings) are shown on the plan at Appendix ‘E’. Based on the conclusions of the specialist reports, these buffers are satisfactory</i>
	Not in an environmentally sensitive or inappropriate area	<i>The site is not in an environmentally sensitive area. Notwithstanding the proposed use is prohibited in the zone, the area is considered to be appropriate for this proposal. Similar uses in the immediate vicinity have operated for many years and the specialist reports appended to this EIS indicate that potential impacts are negligible or manageable and comply with relevant policies and guidelines.</i>
Technical	Integration with existing and future waste network	<i>The facility is well located in the context of greater Western Sydney, where the majority of the proponent’s work is undertaken. It has appropriate access via classified roads such as Elizabeth Drive, Northern Road and the M7 Motorway. The facility will create efficiencies in terms of distances travelled to appropriate recycling facilities and provides additional incentives for resource recovery.</i>
	Opportunities for Regional co-operation	<i>Not relevant in this circumstance</i>
	Centrality	<i>Discussed above</i>
	Accessibility	<i>Access to the main site is not constrained by seasonal variants such as flooding. The site is accessible via main and secondary roads.</i>

	Existing services and utilities	Existing electricity, town water and telecommunications infrastructure are available in Martins Road. Sewerage facilities are not available in the area at this time.
	Size of area required	The site provides satisfactory area for the efficient functioning of the facility.
Environmental	Geology	The soil analysis undertaken by Martens (Appendix 'P') indicates that the geology of the site is satisfactory for the proposal. The site is geologically stable and should not result in groundwater pollution.
	Groundwater	The soil analysis undertaken by Martens (Appendix 'P') indicates that the proposal should not result in groundwater pollution.
	Surface water	The site is not within an identified drinking water catchment. There are no nearby bores that are able to be used for drinking water.
	Ecology	Refer to the flora and fauna report prepared by Woodlands Environmental Management (Appendix 'I'). This proposal will not lead to any ecological impacts.
	Visibility	The proposed activities at the site will be predominantly screened by fencing and vegetation.
	Traffic	The Traffic impact assessment prepared by Parking and Traffic Consultants is at Appendix 'L' and summarised in Section 14 of this EIS. The report concludes that the proposal will not result in unmanageable traffic impacts on the local road network.
	Topography	The topography of the site is advantageous to the proposal (see plan at Appendix 'D').
	Noise	The acoustic assessment prepared by Wilkinson Murray (see Appendix 'K') is summarised in Section 13 of this EIS. Relevantly, the report demonstrates that the buffer distances this site is able to provide allows the facility to comply with relevant government policies, provided certain mitigation measures are installed.
	Dust and odour	The air quality assessment prepared by Todoroski Air Sciences (see Appendix 'M') is summarised in Section 15 of this EIS. Relevantly, the report demonstrates that air quality impacts on surrounding properties is negligible
	Amenity	The activities on site will be predominantly obscured from view by fencing and proposed landscaping.

Table 9
Site selection criteria and analysis

Additionally, the chosen site may justified in terms of:

- Ability to satisfy the objective of the proposal (see Section 2)

The objective of this proposal is set out in Part B, Section 2 of this EIS.

In terms of site selection criteria, the last part of the objective is most relevant:

- will result in minimal environmental impact, is visually unobtrusive and provides convenient access to growth areas within the local area

The subject site is preferred because the facility can be erected with minimal environmental impact (provided mitigation and management measures are implemented), the site has an existing level of screening, which can be supplemented with the proposed landscaping, and is conveniently located in an area where some industrial-type activity is already occurring.

In relation to the alternate sites/locations considered, whilst each would be able to achieve most of the objectives in terms of service provision:-

➤ Acceptability of environmental impacts

The potential environmental impacts related to the selected site have been examined in detail. The environmental impacts are acceptable.

➤ Acceptability of environmental risks

Provided the management and mitigation measures identified in Part E (and further listed in Part G) of this EIS are implemented, the potential environmental risks are acceptable.

➤ Efficient use of land

Given the nature of existing surrounding land uses, development of the main site for this proposed use is a positive outcome and an efficient use of the land.

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PART D

IDENTIFICATION AND PRIORITISATION OF ISSUES

6. Stakeholder Engagement

6.1 Agency Consultations

6.1.1 Council Consultations

Numerous preliminary discussions were undertaken with several Council officers prior to the preparation of an application seeking Secretary's Environmental Assessment Requirements (SEARs). A pre-lodgment letter from Council dated 5 March 2008 was received by an original proponent and is included at **Appendix 'C'**.

In addition, subsequent to receipt of the application for SEARs, the Department of Planning and Environment (DPE) contacted Council for feedback in relation to the proposal. Council's responses are attached to the SEARs (**Appendix 'A'**).

ISSUES	SPECIFICS	REFERENCE (TO THIS EIS)
<i>Planning report</i>	<i>Rural context and future urban context</i>	<i>Table 28 and Section 33</i>
<i>Consideration of road widening</i>	<i>Martin Road</i>	<i>Section 14 and Appendix 'L'</i>
<i>Consideration of future linear infrastructure</i>	<i>M9 and South West Rail Link</i>	<i>Sections 32.4.2 and 32.4.3</i>
<i>Impact on SREP No 9 – Extractive Industries No 2</i>		<i>Section 32.5.2</i>
<i>Badgerys Creek Airport Impacts</i>		<i>Section 17 and Appendix 'U'</i>
<i>Acoustic report</i>	<i>NSW EPAs Industrial Noise Policy</i>	<i>Section 13 and Appendix 'K'</i>
<i>Odour Impact assessment</i>		<i>Not required</i>
<i>Environmental Management Plan</i>	<i>Addressing issues in relation to spills, air, water, noise and land pollution</i>	
<i>Operational Management Plan</i>		<i>Appendix 'Q'</i>
<i>Stormwater Management Plan</i>		<i>Section 20 and Appendix 'O'</i>
<i>Waste Water Management</i>		<i>Not required</i>
<i>Sewerage Management</i>		<i>Not applicable</i>
<i>Traffic Impact Assessment</i>		<i>Section 14 and Appendix 'L'</i>
<i>Aboriginal Archaeology</i>		<i>Section 12 and Appendix 'J'</i>
<i>Floodplain and water management</i>	<i>Water quantity</i>	<i>Section 20 and Appendix 'O'</i>
	<i>Water quality</i>	<i>Section 20 and Appendix 'O'</i>
	<i>Water management strategy</i>	<i>Section 20 and Appendix 'O'</i>
<i>Haulage route</i>		<i>Not required</i>
<i>Monetary payments</i>	<i>Maintenance of local roads</i>	<i>Unwarranted</i>

Table 10
Liverpool Council Assessment Requirements

6.1.2 Secretary's Environmental Assessment Requirements (SEARs)

An application was made to the Department of Planning and Environment (DPE) for Secretary's Environmental Assessment Requirements on 28 July 2014. SEARs were issued by the Department of Planning on 12 September 2014. A copy of the SEARs is included at **Appendix 'A'** and a tabulated response to the SEARs is provided at **Part D, Section 6.1.4** of this EIS. Appended to the SEARs were responses from Environment Protection Authority (EPA), Roads and Maritime Services (RMS) and Liverpool Council.

6.1.3 Agency Correspondence

Following receipt of the SEARs, the proposal was forwarded to the following Agencies for input/requirements:

- Endeavour Energy
- Sydney Water
- Telstra Corporation
- NSW Office of Environment and Heritage
- NSW Office of Environment and Heritage (Heritage Branch)
- Dept Infrastructure and Regional Development (Western Sydney Unit)

Responses from the Agencies are included in **Appendix 'B'**.

6.1.4 Tabulated responses to Issues raised by Government Agencies

➤ Secretary's Environmental Assessment Requirements

ISSUES	SPECIFICS	REFERENCE (TO THIS EIS)
Key Issues	<i>Strategic Context</i>	<i>Table 28 and Section 33</i>
	<i>Waste Management</i>	<i>Section 21</i>
	<i>Hazards and Risk</i>	<i>Appendix 'R' and throughout this EIS</i>
	<i>Soil and Water</i>	<i>Section 4.6 and Section 20</i>
	<i>Traffic and Transport</i>	<i>Section 14</i>
	<i>Air Quality</i>	<i>Section 15</i>
	<i>Noise and Vibration</i>	<i>Section 13</i>
	<i>Visual</i>	<i>Section 16</i>
	<i>Biodiversity</i>	<i>Section 11</i>
	<i>Heritage</i>	<i>Not required</i>
Environmental Planning Instruments		<i>Part H</i>
References	<ul style="list-style-type: none">• <i>Environmental Guidelines for Composting and Related Organics Facilities;</i>	<i>Section 7.2</i>

	<ul style="list-style-type: none"> • <i>NSW Waste Avoidance and Recovery Strategy;</i> • <i>Waste Classification Guidelines</i> 	<p>Section 7.1</p> <p>Section 7.3</p>
Consultation	Sections 6 to 9	

Table 11

Summary of Secretary's Environmental Assessment Requirements

➤ **Environment Protection Authority**

ISSUES	REFERENCE (TO THIS EIS)
<i>Structure of the EIS</i>	<i>As below</i>
<i>Executive Summary</i>	<i>Executive Summary, p 11</i>
<i>The Proposal</i>	<i>Part B, p 21</i>
<i>The Location</i>	<i>Part C, p 31</i>
<i>Identification and prioritisation of Issues</i>	<i>Part D, p 43</i>
<i>Environmental Issues</i>	<i>Part E, p 55</i>
<i>List of Approvals and Licences</i>	<i>Part F, p 83</i>
<i>Compilation of Mitigation Measures</i>	<i>Part G, p 85</i>
<i>Justification for the Proposal</i>	<i>Part J, p 129</i>

Table 12

Summary of Environment Protection Authority requirements

➤ **Roads and Maritime Services**

ISSUES	SPECIFICS	REFERENCE (TO THIS EIS)
<i>Daily and peak traffic movements</i>	<i>Movements likely to be generated by the proposal and impact on nearby intersections</i>	<i>Traffic report, Appendix 'L'</i>
<i>Access points and parking provision</i>	<i>Compliance with Aust standards</i>	<i>Traffic report; Appendix 'L'</i>
<i>Swept paths</i>	<i>Manoeuvring in accordance with Austroads requirements</i>	<i>Traffic report, Appendix 'L'</i>

Table 13

Summary of Roads and Maritime Services requirements

➤ **NSW Office of Environment and Heritage (OEH)**

No response

➤ NSW Office of Environment and Heritage (OEH) – Heritage Branch

No comments

➤ Sydney Water

No response

➤ Endeavour Energy

No response

➤ Telstra Corporation

No issues

➤ Commonwealth Dept of Infrastructure and Regional Development

ISSUES	SPECIFICS	REFERENCE (TO THIS EIS)
Attraction of certain wildlife	<i>Birds being attracted by greenwaste and pond</i>	<i>See report by Eco Planning at Appendix 'U'</i>
Obstacles to aircraft overhead	<i>Height of buildings, structures and objects are not to penetrate the airspace</i>	<i>Complies</i>
Any other potential impacts		<i>No further investigations</i>

Table 14

Summary of Commonwealth Dept Infrastructure and Regional Development

6.2 Community Consultations

After receipt of SEARs, a letter was hand delivered to the mail boxes of a range of properties surrounding the subject site. Figure 3 shows the properties where letters were hand delivered.

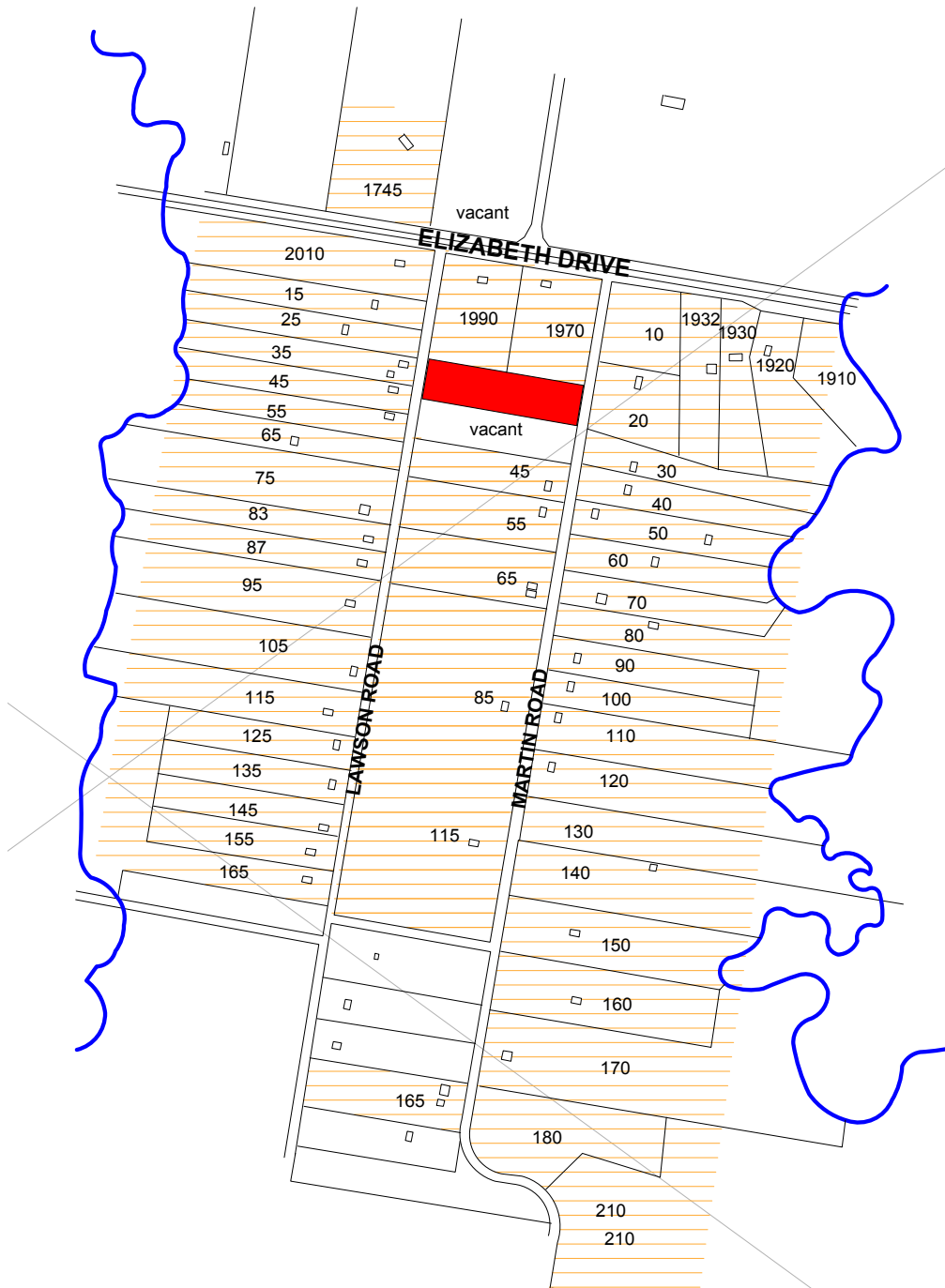


Figure 3
Area of letterbox distribution

The letter advised of the proposed development and invited people to advise if there were any issues they specifically required this EIS to address.

In response, two emails were received. These emails are reproduced in **Appendix 'C'**. One email requested that dust generation be investigated. The other asked for additional information, which was provided.

7. NSW Government guidelines

7.1 NSW Waste Avoidance and Resource Recovery Strategy 2007

The *Waste Avoidance and Resource Recovery Strategy 2007* (Waste Strategy 2007) updates the Waste Avoidance and Resource Recovery Strategy 2003 (Waste Strategy 2003).

Waste Strategy 2007 has been produced in light of current national and international practice, and emerging trends and challenges. It identifies priority actions that will guide the work of all key groups in NSW in contributing to the minimisation of environmental harm from waste disposal and the conservation and efficient use of our resources. The Strategy focuses on solid wastes that, unless recovered and diverted to beneficial uses, would be disposed of to solid and inert waste landfills throughout NSW.

Waste Strategy 2007 identifies four outcomes:

- Preventing and avoiding waste;
- Increasing recovery and use of secondary materials;
- Reducing toxicity in products and materials; and
- Reducing litter and illegal dumping

The subject proposal will contribute to two of these outcomes (preventing and avoiding waste and increasing recovery and use of secondary materials).

The Waste Strategy 2007 also notes that construction and demolition waste is the second largest source of waste in NSW (commercial and industrial waste being the largest). Given the expected growth in population in the greater Western Sydney over the next 25 years, driven by new land releases progressively coming on stream, the volume of construction waste in the area will increase significantly. It is therefore important that a facility such as that proposed by this application be approved and constructed without delay, in order to assist with the management of this increasing waste stream and capitalise on the opportunities for resource recovery and reuse.

7.2 Environmental Guidelines for Composting and Related Organics Facilities

The *Environmental Guidelines for Composting and Related Organics Facilities* was prepared by the Waste Management Section of the Department of Environment and Conservation¹¹ (NSW) in July 2004.

¹¹ From 24 September 2003 the Department of Environment and Conservation (DEC) incorporates the Environment Protection Authority (EPA), which is established in the Protection of the Environment Administration Act 1991 as the Authority responsible for administering the Protection of the Environment Operations Act 1997 (POEO Act).

The activities of chipping and mulching of greenwaste is proposed at the facility. However, these on site activities are not for the purposes of the biological conversion of organics. Therefore, the composting process (that is, the breaking down of the composition of the greenwaste) will not occur at the site.

Nevertheless, some parts of the composting guidelines are relevant to this proposal.

Section 2 of the guidelines contains an overview of environmental issues and their management.

Air Quality

The main risk of adverse impacts on air quality would arise when there is a delay in removing the chipped/mulched material from the site. In this regard, as the proponent is not seeking to undertake the composting process, the chipped/mulched material will be removed from the site within 3 days of processing. Nevertheless, an excavator or front end loader will always be on site in order to turn the material over, to ensure it does not become anaerobic.

Leachate

The stockpile of processed greenwaste has the potential to pollute waters, because leachate may be generated when the stockpiled chips/mulch contain excessive moisture (for example, when too much rain falls or if stockpiled organics are not sufficiently aerated or turned).

To address this potential risk, the WCMS (**Appendix 'O'**) proposes bunding to direct water away from the stockpile. In some cases, it may also be necessary to cover the stockpile with a tarpaulin.

Surface water run-off from the stockpile also has the potential to result in unacceptable loads of sediment and suspended solids in receiving waters, while surface water run-on can lead to excessive generation of leachate

To address this potential risk, the WCMS (**Appendix 'O'**) proposes bunding to direct water away from the stockpile. In some cases, it may also be necessary to cover the stockpile with a tarpaulin.

Fire hazards

In light of the short period of time that the processed greenwaste will be stockpiled (maximum 3 days), fire hazard is considered unlikely.

Amenity issues

The potential for odour impacts has been discussed. The processed material will not be stockpiled long enough to attract wildlife, including birds (**Appendix 'U'**). The Air Quality report (**Appendix 'M'**) addresses the issue of dust generation and provides mitigation measures where required.

Section 3 of the guidelines contains regulatory information.

Table 3 of the guidelines identifies that the type of organic material proposed for processing at this facility is 'Category 1'¹², which is the lowest potential environmental impact.

¹² Category 1 – garden and landscaping organics, untreated timber, natural organic fibrous organics, processed fibrous organics

7.3 Waste Classification Guidelines

Waste must be classified according to the *Waste Classification Guidelines – Part 1: Classification of Waste (EPA), 2014*.

STEP 1 – Is the waste ‘Special Waste’?

It is proposed to accept waste rubber tyres, which is classified “special waste”.

Rubber tyres will be stored on a bunker or pad and removed from the site as soon as the container is full. The tyres will at no stage be left on the site for extended periods, in contact with the ground.

Tyres will be stored and handled in accordance with NSW Fire Brigade *Guidelines for Bulk Storage of Rubber Tyres – Policy No 2* where applicable.

STEP 2 – Is the waste ‘Liquid Waste’?

There will be no liquid waste accepted at this facility.

STEP 3 – Is the waste ‘Pre classified’?

- **Hazardous Waste**

The facility will not accept hazardous waste.

- **General solid waste (putrescible)**

The facility will not accept general solid waste (putrescible).

- **General solid waste (non-putrescible)**

The facility will accept some types of general solid waste (non-putrescible), for example, bricks, concrete, metal, timber, garden waste, virgin excavated natural material and wood waste

STEP 4 – Does the waste possess hazardous characteristics?

The waste does not possess hazardous characteristics.

STEP 5 – Determining a waste's classification using chemical assessment

Not required in this circumstance.

STEP 6 – Is the waste putrescible or non-putrescible?

The waste is non-putrescible.

8. Specialist Studies Commissioned

In order to fully identify, investigate and assess the potential risks associated with the proposal, and devise mitigation and / or management measures, a number of specialist studies were commissioned. These studies are contained in the Appendices and are listed below.

- Environmental Assessment (Flora and Fauna)
- Due Diligence Aboriginal Cultural Heritage report
- Acoustic Assessment – operational noise
- Traffic Impact Assessment
- Air Quality Assessment
- Preliminary Environmental Site Assessment (Phase 1 Contamination report)
- Water Cycle Management Study
- Soil Investigation
- Visual Impact Assessment

9. Summary of Outcomes

Issue	Core	Non-core	Discussion / analysis	Justification for level of analysis
Noise from plant operations	X		Section 14; Appendix 'K'	Proposal achieved compliance with INP with mitigation and/or management measures
Dust from plant operations	X		Sections 15; Appendix 'M'	'Proposal achieved compliance with relevant policy with mitigation and/or management measures
Traffic generation	X		Section 14; Appendix 'L'	Comprehensive analysis shown minimal additional traffic except on Anthony Road
Storm water management	X		Section 20; Appendix 'O'	Stormwater treatment system proposed achieves neutral or beneficial effect
Contamination	X		Section 19; Appendix 'N'	Unlikely to be existing contamination so no further investigation was warranted
Soil characteristics		X	Section 4.6; Appendix 'P'	Results are satisfactory; no further investigations necessary
Community and Economic Effects	X		Section 18	Neutral or beneficial
Aboriginal Cultural Heritage	X		Section 12; Appendix 'J'	Unlikely to impact on Aboriginal cultural heritage

Table 15
Summary of issues and outcomes

9.1 Environment likely to be Affected by the Proposal

Generally, the environment likely to be affected by the proposal is:

- removal of some insignificant trees on the subject site
- minor increase in traffic on Martin Road
- potential visual impacts
- potential noise impacts
- potential dust impacts

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PART E

ENVIRONMENTAL ISSUES

10. General

10.1 Structure of Assessment

In accordance with the recommendations outlined in the EPA requirements (**Appendix 'B'**), the environmental issues analysed in this section are divided into 4 primary components:

- Introduction
- Baseline Conditions
- Impact Assessment
- Management and Mitigation Measures

11. Ecology

11.1 Introduction

Pursuant to Schedule 7, Part 7 of the *Threatened Species Conservation Act 1995*, the subject land is covered by the South West Growth Centre - Biodiversity Certification. Under s.126I(3) of that Act, the consent authority is not required to take into consideration the likely impact of the development on biodiversity values (despite any provision of the Planning Act or any regulation or instrument made under that Act).

Nevertheless, the SEARs relating to this proposal include requirements for biodiversity, including:

- identification and assessment of potential impacts to any identified threatened species, populations, ecological communities or their habitats; and
- protection (including from indirect effects) of existing remnant vegetation presently existing on the site and in surrounding areas.

Therefore, in order to be compliant with the SEARs, survey methodologies and reporting usually applied to assessments undertaken for land not subject to Biodiversity Certification have been applied in the preparation of this report.

Field survey and assessment was undertaken at the subject site and a report prepared by Woodlands Environmental Management (**'Woodlands report'**), for the purpose of:

- assessing the likely effects of the proposed development upon on flora and fauna at the site with particular regard to threatened species, populations or ecological communities, or their habitats,
- identifying opportunities to avoid, minimise or mitigate impacts,
- developing appropriate offsets,

- ensuring that the development results in no loss of biological diversity or ecological integrity, and
- preparing Assessments of Significance as required

The survey, assessment and report was prepared with reference to NSW Office of Environment and Heritage Threatened species survey and assessment guidelines and addresses the following Commonwealth, State and Local statutory requirements:

- *Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)*
- *Threatened Species Conservation Act 1995 (NSW)*
- *Environmental Planning and Assessment Act 1979 (NSW)*
- *Fisheries Management Act 1994 (NSW)*
- *Native Vegetation Act 2003 (NSW)*
- *Liverpool LEP 2008*
- *Liverpool Biodiversity Management Plan (2012)*

The Woodlands report is at **Appendix 'I'** of this EIS.

11.2 Baseline Conditions

The eastern two-thirds (about 1.3ha) of the subject site is highly disturbed and includes bare ground with minor occurrences of grassland, dominated by exotic species. The western third (about 6800sqm) of the subject site is dominated by exotic pasture and weeds with a small area (about 200sqm) of remnant, immature woodland.

The study area supports modified grassland and remnant Grey Box – Forest Red Gum grassy woodland.



Figure 4¹³
Site and surrounding vegetation types

¹³ Sourced from Figure 6 of Woodlands report

11.3 Impact Assessment

Assessment of impacts on flora

Table 6 of the Woodlands report identifies potential direct, indirect and cumulative impacts on flora.

Remnant Grey Box – Forest Red Gum grassy woodland within the subject site is a small patch (about 200sqm), containing saplings and immature overstorey regrowth, most of which was observed to be dead or dying¹⁴. A very sparse, shrubby understory is present within a groundcover dominated by exotic pasture and weeds, with native grasses and herbs being only a minor component.

In the absence of appropriate management, it is likely that the remnant patch on this site will continue to degrade, due to significant weed invasion and it is unlikely to remain viable under existing conditions. Whilst some regeneration will also occur in the absence of further negative impacts and disturbances, it is unlikely to be substantial.

Assessment of impacts on fauna and habitats

A full fauna survey was not considered necessary due to the nature and condition of the vegetation and fauna habitats present at the subject site, as well as the unlikelihood of threatened species utilizing the site.

Nevertheless, the Woodlands report adopts a cautious approach, utilizing the NSW Office of Environment & Heritage's Threatened Species Database to compile a list of species that may inhabit highly disturbed areas with no or limited native vegetation, for the purposes of conducting Assessments of Significance.

Conclusion

The Woodlands report concludes as follows:

- 1) The 2ha subject site includes:
 - c. 1.3ha of highly disturbed land which includes bare ground with minor occurrences of grassland dominated by exotic species;
 - c.6800m² of exotic pasture and weeds;
 - c. 200m² of Grey Box - Forest Red Gum grassy woodland or Cumberland Plain Woodland Endangered Ecological Community in low or poor condition
- 2) No threatened species of flora was located within the subject site
- 3) No threatened species of fauna was located within the subject site, however the site supports habitat potentially utilised by six threatened species of fauna located within 10km.
- 4) The development as proposed will required the removal of all vegetation at the subject site.
- 5) Assessments of Significance conclude that the development as proposed is unlikely to have a significant impact on threatened species, communities, populations or their habitats.

¹⁴ See section 8.6 of the Woodlands report

11.4 Management and Mitigation Measures

Direct impacts

- Removal of all modified grassland – avoidance, minimisation, mitigation or offsetting are not required as the vegetation is dominated by exotic pasture species and weeds.
- Removal of all remnant Grey Box – Forest Red Gum grassy woodland – impacts have not been avoided. No minimisation, mitigation or offsetting is considered necessary, as the vegetation is in low or poor condition, limited in size and unlikely to remain viable under existing conditions.

Indirect impacts

- Noise – impacts have been avoided and minimisation, mitigation or offsetting are not required.
- Air quality – impacts have been avoided and minimisation, mitigation or offsetting are not required.
- Stormwater and hydrology – impacts have been avoided and minimisation, mitigation or offsetting are not required.

Cumulative impacts

- No impacts likely – avoidance, minimisation, mitigation or offsetting are not required.

12. Aboriginal Cultural Significance

12.1 Introduction

Artefact was commissioned to undertake a Due Diligence Aboriginal Cultural Heritage assessment in order to establish the Aboriginal heritage significance of the subject site and prepare a report (**‘Artefact report’**).

The Artefact report has been produced according to the Office of Environment and Heritage (OEH) *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*.

The *National Parks & Wildlife Act 1974*, administered by the OEH provides statutory protection for all Aboriginal ‘objects’ (consisting of any material evidence of the Aboriginal occupation of NSW) and for ‘Aboriginal Places (areas of cultural significance to the Aboriginal community) under Section 90 of the Act.

The Artefact report is at **Appendix ‘J’** of this EIS.

12.2 Baseline Conditions

An extensive search of the Aboriginal Heritage Information System (AHIMS) database was undertaken on the 23 September 2014 by Artefact.

An area of approximately four kilometres (east-west) by four kilometres (north-south) was searched in order to gain information on the archaeological context of the area, and to ascertain whether there are any previously recorded Aboriginal sites within the subject land. A total of twenty-four sites were identified by the extensive AHIMS search.

The AHIMS site register search indicates that artefact scatters are the dominant site type within the search area. A majority of these sites are located to the west and south-west of the study area¹⁵. This concentration of artefact scatters in this location may be directly related to areas of previous archaeological assessments, rather than past Aboriginal activity and occupation patterns across the landscape. However, within the area that has been subject to archaeological survey, artefact scatters tend to be located close to waterlines. There are also individual occurrences of a modified tree and grinding groove within the surrounding area.

No Aboriginal sites have been previously identified on the subject land and no previous archaeological site survey has been conducted on it.

12.3 Impact Assessment

Archaeological potential is closely related to spatial patterning of known sites in the region, environmental context of the study area and levels of prior ground disturbance.

An AHIMS search did not identify any recorded Aboriginal sites in the study area. However, twenty-four Aboriginal sites were recorded within the AHIMS search area. Artefact scatters were the dominant site type in the search area. The recorded artefact scatters were generally low in density and spatially associated to the proximity of waterlines. An examination of the previous archaeological work in the area confirms the correlation of Aboriginal sites and waterlines in the region. While the study area is located between Badgerys Creek and Souths Creek; they are still a significant distance from the study area (450 metres and 515 metres respectively). Therefore the potential for Aboriginal sites within the study area is reduced.

Certain landforms have been identified as having archaeological potential, based on previous archaeological investigations and spatial patterns of Aboriginal sites within the landscape. Within the Cumberland Plain region high density scatters are often associated with rises and slopes, especially when associated with a waterline. Such landforms offered a higher, well-drained location for open camp sites; providing a view of the surrounding terrain and proximity to subsistence resources. However the site inspection confirmed that the study area is within a low-lying floodplain, with no archaeologically sensitive landforms present.

¹⁵ See Figure 3 of Artefact report

The assessment of aerial photography from the last decade indicated that a large amount of ground disturbance had occurred in the central and east portions of the study area. The site inspection confirmed this; identifying the presence of fill material across the area. During the initial assessment, the western portion of the study area appeared relatively undisturbed in aerial photography. However the site inspection revealed that this area had also been subject to high amounts of ground disturbance. Therefore any cultural material located within the study area would most likely be within a disturbed context, reducing its scientific significance.

Based on this background information, data from nearby archaeological investigations, known levels of disturbance at the site, and position on a landform of low archaeological potential; it is considered that the study area has a low potential to contain Aboriginal objects or archaeological deposits.

12.4 Management and Mitigation Measures

No management or mitigation measures are considered necessary, other than usual reporting obligations if artifacts are discovered during excavation works.

13. Acoustic Amenity / Vibration

13.1 Introduction

An investigation has been undertaken and a report prepared by Wilkinson Murray (**‘Wilkinson Murray report’**) to assess the potential acoustic impacts associated with the proposed RRF.

The assessment was conducted in general accordance with relevant NSW Government guidelines, policies and legislation including specifically the NSW Government’s Industrial Noise Policy (INP).

The Wilkinson Murray report is at **Appendix ‘K’** of this EIS.

13.2 Baseline Conditions

13.2.1 Noise Monitoring

Unattended background noise monitoring was undertaken between 8th July and 15th July 2014. The noise logger was installed mid-way along the northern boundary of the site.

The results of the background noise logging results are shown in Table 3-1 of the Wilkinson Murray report. In summary, the L_{A90} dBA background noise levels at the site were:

- Day - 41dBA
- Evening - 36dBA
- Night - 31dBA

Based on the weekday Rating Background Levels adopted for the daytime, the project's intrusiveness noise criterion is **46dBA** L_{Aeq,15min}.

The area is zoned rural, therefore the amenity criteria would be:

- 55dBA for daytime;
- 45dBA for evening; and
- 40dBA for night time

13.3 Impact Assessment

For the Wilkinson Murray assessment, noise predictions were calculated using the CadnaA noise modelling software with ISO 9613 noise prediction algorithms.

The modelling considered two operational scenarios on the site, namely:

Scenario 1 – Building Waste Delivery

This scenario considers a truck entering the site and unloading building waste adjacent to stockpile A, with an excavator loading the crusher.

Scenario 2 – Greenwaste Delivery

This scenario considers a truck entering the site and unloading adjacent to stockpile B with greenwaste, with a front end loader loading greenwaste into a shredder.

Assumed mitigation for modelling

- A 2.5m high acoustic barrier installed on the existing earth mound, giving a final height of 4.7m;
- The existing acoustic fences on the northern and southern boundaries extended west, up to the existing mound on the southern side and beyond the mound on the northern side.

Modelling results

The Wilkinson Murray report identifies up to 17 sensitive receivers around the subject site¹⁶.

¹⁶ Refer to Figure 2-1 of Wilkinson Murray report



Figure 5¹⁷

Sensitive receptor locations - noise

Table 4-1 (Scenario 1) and Table 4-2 (Scenario 2) of the Wilkinson Murray report provides results of the modelling, based on the mitigation measures proposed, that comply with the project's specific noise criterion of 46dBA $L_{Aeq,15min}$.

13.4 Management and Mitigation Measures

In response to recommendations in the Wilkinson Murray report, the following mitigation measures are proposed:

- A 2.5m high acoustic barrier is to be installed on the existing earth mound, giving a final height of 4.7m;
- The existing acoustic fences on the northern and southern boundaries will be extended, as detailed on the site plan.

The Wilkinson Murray report concludes that noise emissions from the site, with the abovementioned noise mitigation measures applied, would comply with the project specific noise levels at all receivers.

Vibration

The proposed plant is not expected to operate in a vibration intensive manner. Given the distance to the

¹⁷ Sourced from Figure 2-1 of Wilkinson Murray report

nearest sensitive receivers, vibration impacts are not likely.

14. Traffic and Transport

14.1 Introduction

A Traffic Impact Assessment has been undertaken and a report prepared by Parking and Traffic Consultants (**‘the Parking and Traffic report’**), to assess potential impacts of increased traffic generated by the subject proposal on the local road network. The assessment also considers the manoeuvrability of vehicles entering, leaving and moving around the site.

The Parking and Traffic report addresses the matters raised in the SEARs in relation to traffic impacts, as set out in section 1.1 of the report.

The Parking and Traffic report is at **Appendix ‘L’** of this EIS.

14.2 Baseline Conditions

14.2.1 Local Road Network

The existing road network is shown in Figure 3 of the Parking and Traffic report.

Elizabeth Drive is classified as a State Road and follows an east-west alignment. Elizabeth Drive connects the Hume Highway with The Northern Road and within the vicinity of the development site. The carriageway comprises one traffic lane in each direction with the provision of auxiliary turning lanes at key intersections. Elizabeth Drive has a posted speed limit of 80km/hr.

Martin Road is classified as a Local Road and follows a north-south alignment. It is a no-through-road and provides vehicular access to the site and neighbouring properties. The carriageway is undivided and comprises one traffic lane in each direction. The intersection of Martin Road with Elizabeth Street operates as a priority controlled intersection (seagull intersection) with Elizabeth Drive comprising the major road.

14.2.2 Existing Traffic Volumes

In order to assess the current traffic conditions in the vicinity of the development site, traffic surveys have been undertaken at the intersection of Elizabeth Drive and Martin Road during a typical weekday.

The surveys were undertaken between 07:30 and 09:30 during the morning and 16:30 and 18:30 during the evening. The peak hours were established as 07:30-08:30 during the morning survey and 16:45-

17:45 during the evening survey.

The results of the traffic survey are depicted in Figures 4 and 5 of the Parking and Traffic report.

14.2.3 Existing intersection capacity assessment

In order to assess the existing operation of the intersection, an assessment has been undertaken using the SIDRA intersection modelling software, which presents a range of performance indicators (Level of Service, Average Delay, etc.).

The SIDRA modeling results for the existing conditions are discussed in Section 3.3 of the Parking and Traffic report. The intersection modelling indicates that the intersection operates well below the capacity and operates satisfactorily during the peak period with the worst reported movement (right turn into Elizabeth Drive), during the evening peak period having an average delay of 29.7 seconds.

14.3 Impact Assessment

14.3.1 Predicted Traffic Generation

Section 4.1 of the Parking and Traffic report details the considerations and assumptions used in deriving an estimated traffic generation for the proposed facility. It takes a conservative approach, estimating up to 5 staff and undertaking a sensitivity analysis by doubling the heavy vehicle movements in peak periods. The facility is not open to the public, so this (otherwise) potential source of additional traffic has not been included in the analysis.

The Parking and Traffic report estimates traffic generation arising from the operation of the proposed RRF as follows:

	Entering	Exiting
<i>Morning Peak</i>	5 cars + 2 trucks	0 cars + 2 trucks
<i>Evening Peak</i>	0 cars + 2 trucks	5 cars + 2 trucks

Table 16
Predicted Traffic Generation

14.3.2 Intersection serviceability

The projected traffic volumes have been applied to the intersection modelling, which indicates no change to the Level of Service of the Elizabeth Drive / Martin Road intersection (refer to section 4.2 of the Parking and Traffic report).

The Parking and Traffic report concludes that the proposed development will result in an insignificant

increase in peak hour traffic movements and the intersection modelling of the projected traffic activity associated with the proposal indicates the intersection located within the vicinity of the site will continue to operate well below capacity and does not warrant any amendments or widening of Martins Road or the intersection. In this regard, the proposal is unlikely to have any notable impact on the overall operation of the surrounding road network.

14.3.3 Parking

The facility will not be open to the public and is expected to generate two employment positions on an as needs shift basis. Therefore, the onsite parking requirements will be a maximum of two spaces. Delineation of these areas on the site is unwarranted. Nevertheless, employee vehicles will park at the eastern end of the site, adjacent to the lunch room.

14.4 Management and Mitigation Measures

Given the minor impact of the additional traffic generated by the proposal, upgrading works along Elizabeth Drive, Martin Road or the intersection of these two roads is unwarranted.

Therefore, no mitigation measures are proposed.

15. Air Quality

15.1 Introduction

An investigation has been undertaken and a report prepared by Todoroski Air Sciences (**‘Todoroski report’**) to assess the potential dust impacts associated with the proposed RRF.

The air quality goals relevant to the Todoroski study are sourced from the NSW EPA document *“Approved Methods for the Modelling and Assessment of Air Pollutants in NSW”* (NSW DEC 2005).

The Todoroski report is at **Appendix ‘M’** of this EIS.

15.2 Baseline Conditions

15.2.1 Climate Characterisation

Local climatic conditions have been outlined in section 4.2 of this EIS.

On an annual basis, winds from the southwest are most frequent. During summer, winds are distributed from the north-northeast to the west-southwest, with the most dominant winds from the southwest. The

autumn and winter distributions are similar to the annual patterns, typically dominated by winds from the southwest. In spring, the distribution shows a similar pattern with that of summer, where the winds are distributed from the north-northeast to the west-southwest, with the most dominant winds coming from the southwest. The wind distributions are similar to those observed at the Badgerys Creek AWS.

15.2.2 Local Air Quality

The main sources of particulate matter in the wider area around the subject site include agricultural activities, emissions from local anthropogenic activities such as motor vehicle exhaust and domestic wood heaters, urban activity and various other commercial and industrial activities.

There are no available, site-specific monitoring data. To estimate the background levels for the site, available data from nearby monitoring stations has been used in the Todoroski report.

Data presented in Table 4-2 of the Todoroski report, for PM₁₀ concentrations, indicates that all annual average values are below the relevant criterion of 30µg/m³, however measured dust levels on a 24 hour average basis are on occasion above the 24 hour average criterion of 50µg/m³.

The Todoroski report applies the following annual average background air quality levels:

- PM10 concentrations 15.7µg/m³
- TSP concentrations – 47.1µg/m³
- Deposited dust levels – 2.1g/m²/month

15.3 Impact Assessment

15.3.1 Dispersion modeling

Table 6.1 of the Todoroski report estimates annual dust emissions from the anticipated activities undertaken at the RRF. The total solid particulate (TSP) emissions are estimated to be 3,701 kg/year.

The AUSPLUME dispersion model, in conjunction with a TAPM¹⁸ generated meteorological data file was applied to provide predictions of the ground level concentrations of dust, based on the emission estimations provided in Section 6.2 of the Todoroski report.

15.3.2 Sensitive Receptors

Sensitive receptors are defined by the EPA as “residential, hospitals, hotels, caravan parks, schools, aged care facilities, child care facilities, shopping centres, play grounds, recreational centres, etc.” (DEC, 2005). On this basis, representative receptors were identified at various locations surrounding the development. A total of 20 sensitive receptors surrounding the subject site were identified by the Todoroski report (Figures 7-1 to 7-9 of the report). Table 7-1 shows the particulate dispersion modeling results for each of the sensitive receptors identified.

¹⁸ TAPM – The Air Pollution Model

15.3.3 Assessment of Impacts

Particulates

The dust dispersion modeling results set out in Table 7-1 of the Todoroski report show that the proposed RRF would have a minimal impact at nearby assessed sensitive receptors. It is unlikely that the proposed RRF would result in any discernible change to existing background air quality levels.

To assess the potential cumulative 24-hour average PM₁₀ impacts for the Project, the NSW EPA assessment method as outlined in the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (NSW DEC, 2005) was applied to examine the potential maximum total (cumulative) 24-hour average PM₁₀ impacts for the proposed Project.

A Level 1 assessment was conducted and involved adding the maximum predicted incremental impact of the Project at the sensitive receptors with the maximum background concentration recorded (40.1 µg/m³) at the NSW EPA Bringelly monitoring site for the corresponding modelling period. The results of the Level 1 assessment are presented in Table 7-2 of the Todoroski report, for each of the sensitive receptors. Results indicate that the predicted maximum impact at all sensitive receptors is not likely to exceed the relevant criteria.

15.4 Management and Mitigation Measures

As with all materials handling activities, steps will need to be taken to ensure emissions are minimised to the extent practicable. Based on the potential mitigation options identified in Table 8-1 of the Todoroski report, measures expected to be implemented at the proposed RRF are as follows:

- Measures to modify or suspend dust-generating activities will be implemented during periods of high wind speeds or whenever dust plumes from the works are visible;
- Engines of on-site vehicles and plant will be switched off when not in use;
- Vehicles and plant will be fitted with pollution reduction devices;
- Vehicles will be maintained and serviced according to the manufacturer's specifications;
- Water suppression as required
- Apply covers for stockpiles in adverse conditions;
- Imposition of speed limits;
- Covering of vehicle loads when transporting material off-site

16. Visual Landscape

16.1 Introduction

In order to determine whether mitigation measures are required to reduce the visual impact of the proposal on the rural landscape, an assessment has been undertaken by HLS Pty Ltd and a report prepared ('HLS report').

The HLS report is at **Appendix 'S'** of this EIS.

16.2 Baseline Conditions

The HLS report describes the baseline conditions as follows:

The surrounding lots are predominantly small scale intensive farmland, being open field vegetable crops, bamboo plantations, vegetable poly-tunnels or sheds for small livestock (chickens, pigs etc). Some lots are predominantly residential surrounded by open grassland, some with horses grazing, and some with stable buildings. A few lots are used for storage of vehicles (used cars or as truck depots). At the southern end of Martin Road is the Australian Native Landscapes (ANL) materials storage (for bulk deliveries and semi-trailer loads to country NSW) and further south is a Boral Bricks storage, with both a brick pit and retail selection facility. Heavy vehicles for both the Boral and ANL sites regularly travel along Martin Road. The character of the area is very mixed, from intensive uses such as small houses completely surrounded by agricultural buildings, creating a very busy landscape character, to open crop fields and large houses set in open grassland.

Martin Road is a rural character road with gravel verges and remnant native Eucalypts scattered in unmown grass verges. Where the remnant trees exist, including along the site frontage, the road has a higher quality character. The trees create an informal avenue, greening the landscape and provide some screening of the varied landscape uses, creating unity. Lawson Road has less trees along the frontage and is a less busy road.

The site can be categorised into 3 landscape zones, a cleared zone, a mound and a grassed zone.

The eastern large portion of the site is a cleared area surrounded by an acoustic fence on three sides and a mound at the western end. The site has several pieces of earthmoving machinery and a shipping container within it, as well as several large piles of sorted materials. This portion of the site is barely visible from Martin Road, where only the upper portion of the earthmoving machines and tops of some stockpiles can be seen. The acoustic fence is in a poor state of repair and of low visual quality. It is lower on Martin Road frontage and higher on the southern boundary.

The mound is a 2.4m high steep grassed mound. It has uneven steep faces, making it unmowable, with a wider flat top. It screens the eastern cleared part of the site from residential dwellings along Lawson Road to the west.

The western part of the site has a sediment pond, a low grass mound along the western boundary, and a few remnant trees. Some of these trees have died. This portion of the site is adjacent to some remnant native vegetation on the vacant lot to the south. The grass is long and the basin appears unmaintained. It is of moderate to low visual quality.

The site is only visible locally and from a small catchment, due to the low-lying topography. It is visible:

- For Martin Road users, as a fence with tops of machinery and stockpiles.*
- For truck users of Martin Road, with their elevated cabin positions, the eastern portion of the site hardstand, machinery and stockpiles will be visible over the acoustic fence.*
- For Lawson Road users, as a neglected grassed open space with scattered trees and a*

mound.

- *For Elizabeth Drive users, for a very short section of Elizabeth Drive at the corner of Lawson Road, as a neglected grassed mound and scattered trees.*
- *From two agricultural properties fronting Elizabeth Drive (numbers 1990 and 1970). The site is visible from the rear of the farm buildings, as a fence, grassed mound, grassed open space and scattered trees. The grassed open space portion of the site is similar in character to open space on the rear of both lots and Lawson Road frontage of number 1990 Elizabeth Drive.*
- *From the fronts of three dwellings opposite on Lawson Road (numbers 35, 45 and 55), as a neglected grassed open space with scattered trees and a mound.*
- *From the rear of two adjacent dwellings to the south on Martin Road (45 and 55) as a fence, some machinery and stockpile tops, a grassed mound, and some scattered trees beyond.*
- *From the driveway of Lot 20 Lawson Road, opposite the site as a fence and with tops of machinery and stockpiles. The house on this lot is surrounded by agricultural sheds and poly-tunnels.*

16.3 Impact Assessment

The landscape character of the area immediately surrounding the site is very mixed, with open field crops, poly-tunnels, sheds, housing, some remnant vegetation and vehicle depots.

The proposal will change the character of the western portion of the site on Lawson Road from a neglected grass paddock, similar to the adjacent paddock on the corner of Lawson Road, to a planted fenceline with trees and shrubs, similar to the remnant vegetation on the adjacent property to the south. The vehicle storage area and shed will be partially screened behind the band of vegetation. The vehicle storage and sheds may be similar to those visible, but setback from the road, on the adjacent corner property.

The tree planting within the boundary on both Lawson Road and Martin Road frontages will be a positive addition to the rural streetscape, and the character of the area.

The proposal will increase the usage of the eastern portion of the site, and possible stockpile sizes, and formalise the site layout internally. The proposed buildings are of a similar size to the shipping container existing on site. The development will be partially screened by the existing and proposed extension to the acoustic fence, with additional screening provided by trees to reach at least 6m and would screen the stockpiles, machinery and buildings.

The development will not have adverse impacts on the character of the area for the following reasons:

- Tree planting around the perimeter of the site will provide a positive improvement to the visual character of the site and to the streetscape.
- The recycling activities will be screened from residential and road users on Lawson Road by the planted mound in the middle of the site.
- The vehicle depot and shed will be partially screened by fencing and planting. This landuse is similar to other uses along Lawson Road, so not visually out of character with the area, and similar to use on the adjacent corner property, and No 55 Lawson Road.
- The eastern portion of the site is currently being used for material storage so this landuse will

only intensify and be formalised. There is currently only limited visibility to this portion of the site, backdropped by surrounding built elements or bamboo plantation. Proposed boundary planting will eventually screen the site from adjacent users.

- The landscape is visually consistent with similar uses in the area and along Martin Road.
- The visual appearance of the Martin Road portion of the site is, and will continue to be of higher quality than the site opposite, when viewed from Martin Road.
- The truck users of Martin Road will view over the fence until vegetation grows. These truck users will have been to similar sites at ANL or Boral along Martin Road, so are not considered to be impacted by the proposed changes in visual use.

16.4 Management and Mitigation Measures

The inclusion of these design recommendations in the development will ensure that any visual effects will be minimised:

- Retention of the remnant native trees along the Martin Road frontage, to retain existing street character.
- Repair of damaged sections of fence and repainting of fence to a consistent deeper grey-green colour, to improve its visual appearance.
- Planting of small trees and shrubs around the perimeter of the site, as proposed, to screen the activities.
- Planting of the internal mound, as proposed, to screen the Lawson Road dwellings from the eastern recycling portion of the site.
- Install a drip irrigation system and protective fence in all planting areas, to improve planting survival rates. Install geotextile (shadecloth) on internal fence to minimise stockpiled materials spilling into vegetation strips.

17. Badgerys Creek Airport

17.1 Introduction

On 15 April 2014 the Federal Government announced that Sydney's second international airport would be built at Badgerys Creek. The subject site is along the flight path for the airport.

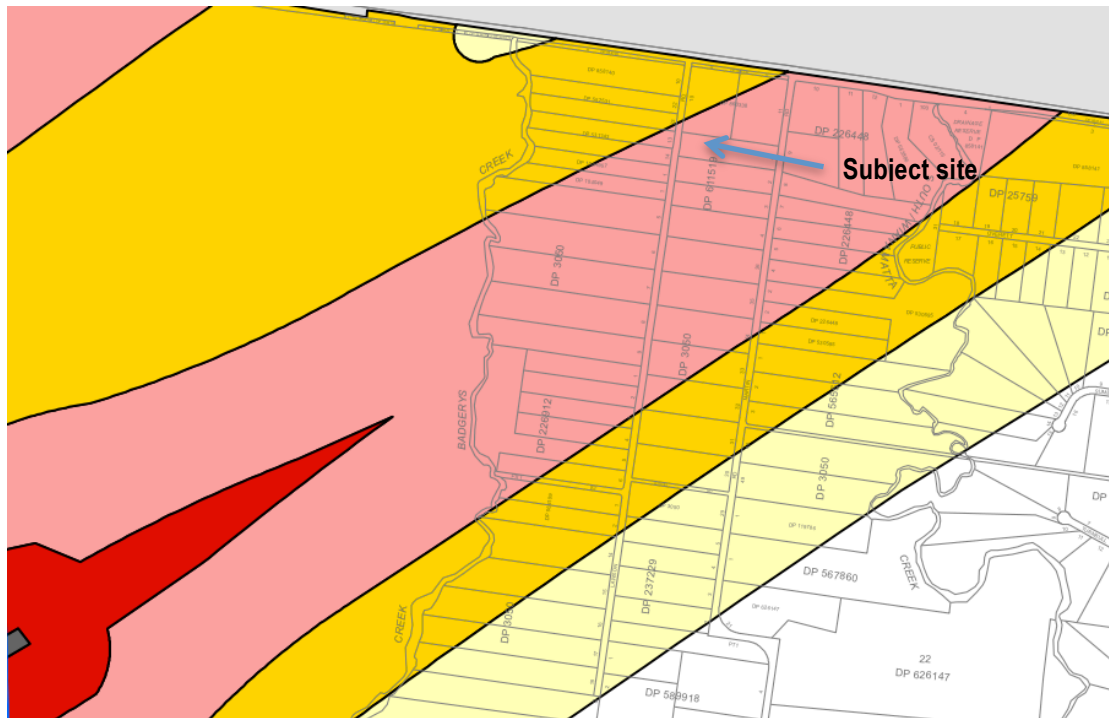


Figure 6
Subject land in relation to Badgerys Creek Airport flight path

17.2 Baseline Conditions

There are no baseline conditions, as the proposed airport is not yet operating.

17.3 Impact Assessment

The Commonwealth Dept Infrastructure and Regional Development (DIRD) was contacted for input in relation to this proposal. Its response is contained at **Appendix 'B'**.

DIRDs response raised two important issues, namely:-

- Height of buildings; and
- Potential for the activities at the proposed facility to attract wildlife, particularly birds.

In relation to height of buildings, the height of the proposed storage shed will not impede the safe flow of aircraft.

In relation to activities attracting birds, the report by Eco Planning¹⁹ notes:

Given that the proposed resource facility is NOT for general waste (i.e. the facility does not handle food waste), but is largely for building (~80 % of the 60,000 tonnes handled) and some green waste (~20 % of total handled), it is highly unlikely that the species of most concern, Australian White Ibis and Silver Gull, would use the subject site above what would be expected to be

¹⁹ Refer to report by Eco Planning at Appendix 'U' – ref 2015 – 003 dated 18 February 2015

'normal'. Normal levels are considered to be the 'natural' level of activity expected in this region given that they are migratory species.

The presence of the proposed facility is not likely to be attractive as a nest site. It is also relevant to consider that green waste will be processed (chipped) and transported to locations away from the subject site in a relatively quick period (a maximum of two weeks). This rapid time is insufficient to allow birds to establish breeding areas. This is also insufficient time to allow green waste to decompose to a level that it will be colonised by composting invertebrates and microbes. In the absence of these as a potential food source, birds are likely to find the subject site 'unprofitable' as a source of natural foods. Finally, the size of the site is small, and it would be expected that machinery for bulk handling (e.g. loaders and tip trucks) will be relatively confined, which will inhibit birds from using the subject site.

In terms of the risk of the pond attracting birds, the Eco Planning report notes:

The proposed on-site detention (OSD) basin has a maximum capacity of 425m³, with a maximum depth of ~1 m (Marten 2014), meaning that the maximum surface area of the OSD can be estimated to be ~400 m² (or ~20 m x 20 m) (Figure 1). This small surface area is the equivalent of a small farm dam and is not considered sufficient to allow for the congregation of large flocks of birds. Further, the general locality is characterised by peri-urban and small scale farming (general land use zoning is RU1 – Primary Production), meaning that farm dams of this size are a relatively common resource in the area.

17.4 Management and Mitigation Measures

The Eco Planning report suggests a range of possible mitigation measures, the most practical in this circumstance being:

- Restrict roosting opportunities through appropriate landscaping and/or pruning/removal of problematic plant species;
- Implement a weed management plan that includes keeping grassed/turfed areas mown and maintained²⁰
- Restrict access to human food sources

The Eco Planning report also recommends a monitoring program in order to:

- Ascertain the 'normal' level use of the subject site by birds;
- Compare changes in activity to control sites to determine the effectiveness of the mitigation measures; and
- Make recommendations to ensure birds do not reach levels above what is considered 'normal'.

18. Community and Economic Effects

18.1 Introduction

The proposed development will have community and economic effects, both positive and negative.

²⁰ Refer to Weed Management Plan at Appendix 'T'

These effects have been identified and assessed in this EIS and by the specialist studies undertaken. Where there is potential for negative impacts, mitigation measures have been designed to ameliorate these impacts on the environment and the surrounding community.

18.2 Baseline Conditions

The current circumstances are briefly as follows:

- The subject site is vacant and is used to store materials. The site, therefore, currently contributes marginally to the local economy
- The main site is generally visually obscured from most vantage points around the vicinity by existing solid fencing
- Land uses in the surrounding area range from intensive farming activities to semi industrial uses, as well as rural residential uses.
- The subject site is shown being under the flight path for the proposed Badgerys Creek Airport.

18.3 Impact Assessment

18.3.1 Community Effects

Citizens typically evaluate proposals of the subject nature in quality of life terms, reflected largely in amenity issues such as noise, dust, visual amenity and road safety.

The proposed facility will result in a minor intensification of activity in the immediate vicinity. However, the specialist reports that have been prepared in order to inform this EIS have demonstrated that the proposed RRF will create manageable impacts related to noise, dust, visual amenity and road safety / congestion. In relation to noise and air quality, the reports demonstrate compliance with the relevant guidelines.

The changing nature of the area is also a relevant consideration. Whilst this area is zoned RU1 Primary Production, it has not retained a typical rural landscape character due to the semi-industrial type of development in the vicinity. In addition, the location of the site directly beneath the flight path of the future Badgerys Creek airport, which will create additional noise impacts for residential land users, is likely to change the nature of the area even further.

It is noted that although many (about 50) adjoining land occupiers were notified of this proposal, only two responses were received. Neither response objected to the proposal.

The significant and thorough environmental assessment process undertaken for this proposal addressed these issues, amongst others, with the outcomes presented in this EIS. These assessments have demonstrated that with the provision of appropriate mitigation measures and management practices, impacts can be minimised such that the local amenity of the area will not be substantially affected. The proposed facility can be erected and operated without causing major disruption to the local community.

18.3.2 Economic Effects

The principal economic benefits attached to this proposal are:

- The provision of infrastructure at no economic cost to the community;
- Relieve pressure on the local and state government to locate an appropriate site and fund a RRF
- Benefits of local employment both during construction and ongoing operational phases;
- Expenditure of the operator for ongoing maintenance of equipment and supply of services;
- Flow on and multiplier effects as a result of the additional expenditure injection into the local economy;
- Increased re-use and recycling of materials

18.4 Management and Mitigation Measures

Generally, the management and mitigation measures relating to Community and Economic Effects is an accumulation of those measures designed to ameliorate negative impacts associated with the raft of issues considered.

19. Contamination

19.1 Introduction

A Stage 1 Preliminary Environmental Site Assessment has been undertaken and a report prepared by Martens & Associates (**'Martens PESA report'**) to determine whether further contamination investigation of the site is warranted.

The objectives of the investigation included:

- Identification of historic and current potentially contaminating site activities.
- Evaluation of potential areas of environmental concern (AEC) and associated contaminants of primary concern (COPC).
- Execute a programme of preliminary soil sampling and laboratory analysis to determine site contamination based on identified potential AEC and COPC.
- Provide comment on suitability of site for future use.
- Provide recommendations for further works (if necessary).

The scope of the investigation included:

- Walkover inspection to review current land use, potential contaminating activities and neighbouring landuses.

- Review available Liverpool City Council (LCC) site development consents.
- Review 4 historic aerial photographs to assess past site and surrounding land use patterns.
- Review NSW OEH (formerly NSW EPA) notices under the Contaminated Land Management Act (1997).
- Preliminary intrusive soil investigation and laboratory analysis.
- Preparation of a preliminary SCA report in general accordance with the relevant sections of NSW OEH (2011) and DEC (2006).

The Martens PESA report is at **Appendix 'N'**.

19.2 Baseline Conditions

The Martens PESA report notes that laboratory results identified the presence of bonded asbestos containing material (ACM) fragments at one location on the site.

19.3 Impact Assessment

Based on the information collected during this investigation, the site is considered suitable, with regards to contamination, for the proposed development as a waste transfer facility.

19.4 Management and Mitigation Measures

The Martens PESA report recommends that soil and fill impacted by ACM should be removed from the site by an appropriately licensed contractor and disposed of at an appropriate waste facility licensed to accept material classified as 'Special Waste (Asbestos Waste)'. This work should be undertaken only following preparation of a Remedial Action Plan (RAP), which would detail removal of identified ACM and contaminated soils in the vicinity of where it was observed and validation procedures to ensure site is suitable for proposed development.

20. Stormwater Management

20.1 Introduction

An investigation has been carried out and a report prepared by Martens & Associates ('WCMS'), which details an environmentally sustainable strategy for the management of stormwater generated from the site as well as detailing likely impacts resulting from the proposed development. The solutions and conceptual designs presented in the WCMS draw from field inspections, modelling, relevant planning and engineering controls, policy objectives and guiding principles and represent a model for best practice management techniques for stormwater management.

The WCMS is at **Appendix 'O'**.

20.2 Baseline Conditions

The site is located approximately mid-way between Badgerys and South Creeks (approximately 450 m to the west and east respectively). The site generally drains towards the south-west corner to a roadside swale on Lawson Road (approximately 0.1 – 0.3 m deep and 1 – 2 m wide). Elevation ranges from approximately 54 mAHD in the south-west corner to approximately 61.5 m AHD in the north-east corner. Site grades are generally 2 – 3%. No natural watercourses or drainage lines were noted on the site during inspections. An existing constructed channel was noted on the northern site boundary, which appears to cut off surface flow from neighbouring allotment (to the north). Inspection of the standing water within this drainage feature showed it to be affected by a considerable algal bloom and had a sulphurous odour, indicating that the runoff from the neighbouring site is likely to have elevated nutrient levels.

20.3 Impact Assessment

Without an efficient storm water system that captures potentially contaminated water and treats it, before being discharged into the natural drainage system, the impact on the storm water would potentially be significant.

It is for this reason that the storm water system proposed is designed to a high standard, leaving discharging waters at a standard higher than the standard when the waters entered the system.

The system is detailed in the Section 20.4 Management and Mitigation Measures.

20.4 Management and Mitigation Measures

The solution proposed by the WCMS include the following stormwater quantity and quality control measures:

- Stormwater drainage network including swales, pits, pipes, and headwalls (where necessary) and associated outlet energy dissipation and erosion protection works (where necessary).
- Stormwater bioremediation basins positioned to capture surface and piped stormwater flows from the site for treatment and possible re-use. These are proposed to be located as shown on the attached site plans.
- Rainwater tanks consisting of 5 KL (minimum) rainwater tank to reduce stormwater runoff and provide non-potable re-use for landscaping, etc.
- Site OSD basin / tank to be sized to ensure that performance objectives are met.
- OSD outlet permanent erosion control and energy dissipation measures including headwall sized specifically for the OSD outlet pipes and dumped rip-rap sediment erosion control and energy dissipation structure.
- Site earthworks and landscaping designed specifically to minimise the concentration of runoff, direct runoff to proposed stormwater OSD and bioremediation basins and to minimise potential erosion from site surface flows and overflows from stormwater tanks / basins.

Management of stockpiles

Site stockpiles shall require specific stormwater management in accordance with the policies and objectives outlined in Section 1.5 of the WCMS.

Specific comments and recommendations for stockpile management are as follows:

- The facility is not designed to receive food waste, Biosolids or putrescible wastes. Green organic waste to be received by the facility will be garden / landscaping organic wastes (e.g. wood chips, loppings, tree stumps, *etc.*) and untreated timber wastes (e.g. off-cuts, sawdust, crates / pallets *etc.*). These recyclable materials are considered to be Category 1 organics (lowest potential environmental impact) in accordance with NSW DEC (2004) guidelines.
- All stockpiles are to be bunded to divert flows around stockpiles, temporarily covering stockpiles of easily erodible / organic material and direction of seepage from rainfall falling directly on stockpile areas to site stormwater treatment system.
- All surfaces beneath stockpile areas are to be prepared prior to establishment of stockpiles. Preparation shall include placement of inert low-permeability material (e.g. compacted clay, asphalt, *etc.*) designed to withstand anticipated loads from both the stockpiles and equipment / plant used to transport and process stockpiled material including fire management plant.
- No specific leachate barrier, collection or storage system is expected to be required for the site given that no Category 2 / 3 organics are to be recycled at the facility. The proposed swale and bioremediation basin are designed to provide adequate treatment of minor surface water seepage from stockpiles.
- Provision shall be made at the facility for temporary covering of stockpiles of friable / erodible materials during adverse conditions at the site. Suitably sized tarpaulins shall be made available at the site with all staff trained to utilise such covers when and where appropriate.

21. Waste Management

21.1 Introduction

Although the production of waste in the context of this proposal is limited it is imperative that it is minimised and appropriately managed.

21.2 Baseline Conditions

There is no specific baseline data for waste management. The site is currently vacant and therefore does not produce waste.

21.3 Impact Assessment

There is no specific impact assessment for waste management.

21.4 Management and Mitigation Measures

All waste and waste products generated by the operation and its employees and contractors as a result of the on-site activities will be reused or recycled, disposed of at the appropriate location within the facility, without harm to employees and the public, and in compliance with environmental legislation.

The goals of this policy will be achieved by environmentally responsible:

- Avoidance practices
- Re-use and recovery practices;
- Recycling and disposal practices; and
- Waste management research and training

In implementing this policy, the operator will consider

- The environmental impact of waste treatment and disposal options;
- The nature and quantity of the wastes produced;
- Waste streams and their disposal when specifying plant and equipment;
- Waste minimisation through purchasing and procurement; and
- Employee health and safety

The waste management practices will importantly be reviewed on a regular basis to ensure compliance with the policy and the legislative and regulatory framework. Re-use, recycling and disposal options will be periodically reviewed to ensure the most efficient practices are being utilised.

Onsite waste management will be subject to the following controls:

- All waste generated is to be segregated into putrescible waste, organic waste, paper/cardboard, plastic/glass. Bins/containers for each waste stream shall be provided at the administration office.
- All bins will be put out to the street for weekly collection by contractors.

22. Cumulative Impact

The current environment is affected by:

- Noise from surrounding activities, including vehicular;
- Air pollution from surrounding activities;
- Existing traffic generated by surrounding activities;
- Surface water impacts from surrounding activities.

The Wilkinson Murray report provides background noise levels in its assessment of the proposal, thereby accounting for cumulative impact.

The Todoroski report incorporates data from surrounding developments in its assessment of the proposal, thereby accounting for cumulative impact.

The Parking and Traffic report provides baseline traffic volumes and made an assessment of the impact of additional traffic generated by the proposal, thereby accounting for cumulative impact.

The Woodlands report notes that the removal of existing vegetation on the site will not result in an adverse cumulative impact.

The site of the proposed facility is marginally affected by surface water from adjoining land to the north.

Town water and electricity are already available to the site and adequate for the servicing of this facility.

PART F

LIST OF APPROVALS AND LICENCES

AGENCY / AUTHORITY	PERMIT / CONSENT / LICENCE DETAILS	ACTIVITIES
<i>Liverpool Council</i>	<i>Development Consent (EPA Act 1979)</i>	<i>Approval to the proposed development</i>
<i>Environment Protection Authority</i>	<i>Environment Protection Licence (S48 POEO Act 1997)</i>	<i>Scheduled Activities</i> <ul style="list-style-type: none"> • <i>Cl 16(2) Sch 1 – Crushing, grinding or separating</i> • <i>Cl 34(3) Sch 1 – Recovery of general waste</i> • <i>Cl 41(3) Sch 1 – Waste Processing (nonthermal treatment)</i> • <i>Cl 42(3) Sch 1 – Waste Storage</i>

Table 17

List of approvals / licenses / permits sought

PART G

COMPILATION OF MITIGATION MEASURES

23. Flora and fauna

Element	Response
Summary	<p><i>Direct impacts</i></p> <ul style="list-style-type: none"> Removal of all modified grassland – avoidance, minimisation, mitigation or offsetting are not required as the vegetation is dominated by exotic pasture species and weeds; Removal of all remnant Grey Box – Forest Red Gum grassy woodland – impacts have not been avoided. No minimisation, mitigation or offsetting is considered necessary, as the vegetation is in low or poor condition, limited in size and unlikely to remain viable under existing conditions
	<p><i>Indirect impacts</i></p> <ul style="list-style-type: none"> Noise – impacts have been avoided and minimisation, mitigation or offsetting are not required; Air Quality – impacts have been avoided and minimisation, mitigation or offsetting are not required; Stormwater and hydrology – impacts have been avoided and minimisation, mitigation or offsetting are not required
	<p><i>Cumulative impacts</i></p> <ul style="list-style-type: none"> No impacts likely – avoidance, minimisation, mitigation or offsetting are not required
Potential impacts	Removal of Remnant Grey Box – Forest Red Gum grassy woodland
Operational objective	The removal of all Remnant Grey Box – Forest Red Gum grassy woodland from the site is not a significant impact
Performance criteria	<ul style="list-style-type: none"> Compliance with the recommendations of the Woodlands report (if relevant); Compliance with various Acts;
Management strategies	No management strategies required
Monitoring	No ongoing monitoring required
Reporting	No reporting required
Corrective action	No corrective action required

Table 18

Summary of management / mitigation measures – flora and fauna

24. Noise Impacts

24.1 Summary Table

Issue	Strategy	Mitigation/Management
Acoustic Amenity	<i>Minimisation</i>	<ul style="list-style-type: none"> A 2.5m high acoustic barrier is to be installed on the existing earth mound, giving a final height of 4.7m; The existing acoustic fences on the northern and southern boundaries will be extended, as detailed on the site plan.
Vibration	<i>Management</i>	<i>The proposed plant is not expected to operate in a vibration intensive manner, and given the distance to the nearest sensitive receivers, vibration impacts are not likely</i>

Table 19

Summary of management / mitigation measures – Noise Impacts

24.2 Elements

Element	Response
Potential impacts	<i>Excessive noise resulting from the operation of the facility and associated activities may adversely impact nearby residents.</i>
Operational objective	<i>Minimise impacts from noise emissions</i>
Performance criteria	<ul style="list-style-type: none"> Compliance with noise limits set out in the Wilkinson Murray Acoustic report for all activities, relating to various day/night times Compliance with proposed hours of operation
Management strategies	<i>Construction of the acoustic barriers</i>
Monitoring	<ul style="list-style-type: none"> In the event of noise complaints, the operator will undertake noise measurements when the facility is operating, in order to verify the results of the predicted noise modeling. In the event the actual operational noise exceeds the maximum allowable in accordance with the INP, the operator will propose modifications to the design of the facility (or management practices), to further reduce noise impacts. Periodic noise measurements may be taken, where it is deemed appropriate by the licensing agency
Reporting	<i>All incidents of noise complaints to be dealt with by a complaints procedure</i>
Corrective action	<i>The operator may undertake noise measurements when the facility is operating, in order to verify the results of the</i>

predicted noise modeling. In the event the actual operational noise exceeds the maximum allowable in accordance with the INP, the operator will propose modifications to the design of the facility (or management practices), to further reduce noise impacts.

Table 20

Summary of management procedures – noise impacts

25. Traffic Impacts

Element	Response
Summary	<i>SIDRA modelling indicates negligible impact on the intersection of Elizabeth Drive and Martin Road as a result of the predicted increased traffic from the proposed RRF.</i>
Potential impacts	<i>An increase in traffic movements associated with the operation of the facility may impact residents in the surrounding areas.</i>
Operational objective	<i>Minimise impacts of traffic to and from the site</i>
Performance criteria	<i>Compliance with any conditions of development consent and traffic volumes predicted by the Parking and Traffic report.</i>
Management strategies	<i>No management strategies are proposed</i>
Monitoring	<i>Traffic in and out of the facility will be logged through the weighbridge. Weighbridge records are available for inspection by the licensing agency.</i>
Reporting	<i>Weighbridge records will be available for inspection by the licensing agency.</i>
Corrective action	<i>No corrective action envisaged</i>

Table 21

Summary of management / mitigation measures – traffic impacts

26. Air Quality

26.1 Summary Table

Issue	Strategy	Mitigation/ Management
Dust suppression	<i>Mitigation/Management</i>	<i>Measures to modify or suspend dust-generating activities will be implemented during periods of high wind speeds or whenever dust plumes from the works are visible;</i>
		<i>Site will be maintained in a clean condition to prevent the build-up of road based silt;</i>

	<i>Equipment, plant and machinery will be regularly tuned, modified or maintained to minimise visible smoke and emissions</i>
	<i>Water sprays will be used on stockpiled material during materials handling and crushing activities.</i>

Table 22

Summary of management / mitigation measures – Air quality impacts

26.2 Dust Management

Element	Response
Potential impacts	<i>Generation of dust associated with the operation of the facility may impact residents in the surrounding area.</i>
Operational objective	<i>Minimise impacts on air quality</i>
Performance criteria	<i>Particulate levels set out in the Todoroski report</i>
Management strategies	<i>As set out in Table 22 above</i>
Monitoring	<ul style="list-style-type: none"> <i>Dust monitoring will be undertaken by visual checks carried out throughout the day. These checks will be undertaken by the site manager.</i> <i>Complaints will be dealt with promptly in accordance with the Complaints Management Procedure (Section 31)</i>
Reporting	<i>A diary entry will be made for any inspection that reveals visual dust nuisance, indicating the date, time, reason and corrective measures.</i>
Corrective action	<i>In the event that the above mitigation measures noted in Table 22 are insufficient, advice will be sought from experts in relation to additional mitigation strategies</i>

Table 23

Summary of management procedures – air quality impacts

27. Visual Impacts

27.1 Mitigation/management measures

- Retention of the remnant native trees along the Martin Road frontage, to retain existing street character.
- Repair of damaged sections of fence and repainting of fence to a consistent deeper grey-green colour, to improve its visual appearance.

- Planting of small trees and shrubs around the perimeter of the site, as proposed, to screen the activities.
- Planting of the internal mound, as proposed, to screen the Lawson Road dwellings from the eastern recycling portion of the site.
- Install a drip irrigation system and protective fence in all planting areas, to improve planting survival rates. Install geotextile (shadecloth) on internal fence to minimise stockpiled materials spilling into vegetation strips.

28. Contamination

28.1 Mitigation/management measures

- All loads received at the site should be checked visually for signs of contaminating material
- All soil loads must be certified as ENM or VENM
- Where contaminating material is sighted following dumping, it will be removed from the site in accordance with appropriate safety procedures

29. Stormwater Management

Element	Response
Summary	<i>The installation and maintenance of the water treatment system designed and depicted in the WCMS, including installation and maintenance of the landscaping, is the most important mitigation measure for maintaining and improving water quality.</i>
Potential impacts	<i>Lack of maintenance of the collection pond causing polluted water to discharge.</i>
Operational objective	<ul style="list-style-type: none"> • <i>Avoid impacts to surface water quality</i> • <i>Control surface water runoff on-site through the installation of the proposed water treatment system</i>
Performance criteria	<ul style="list-style-type: none"> • <i>Compliance with EPA Licence conditions</i> • <i>Compliance with POEO Act and other relevant legislation</i> • <i>Compliance with Edition 4 of Landcom's Managing Urban Stormwater Guidelines (2004) prior to the commencement of operations</i> • <i>Compliance with the latest version of DECC's Managing Urban Stormwater: Council Handbook</i>

Management strategies	<i>Installation of the water treatment system detailed in the WCMS.</i>
Monitoring	<ul style="list-style-type: none"> <i>Sediment and erosion control measures will be checked to ensure their integrity.</i> <i>Inlet drains will be checked for build up of for sediment and gross pollutants that may become trapped</i> <i>Sediment levels within the sediment basin - remove if significant volume</i> <i>Plants within bioretention basins and wetland - ensure they are not becoming smothered by sediment, gravel or oils</i> <i>Potential scouring within the inlet of sediment basin, bioretention basin and wetland (and repair if necessary)</i>
Reporting	<i>Reporting is not proposed</i>
Corrective action	<p><i>In the event that the operational objectives are not being met, the site manager will arrange the following work to be undertaken:</i></p> <ul style="list-style-type: none"> <i>Clean up sediment and gross pollutants</i> <i>Renew plants in bioretention basins when necessary</i> <i>Repair scouring where necessary</i> <i>Repair breaches in erosion and sediment control devices</i>

Table 24

Summary of management / mitigation measures – Stormwater impacts

30. Compliance with Building Code of Australia (BCA)

The environmental performance of buildings at the facility and their ability to withstand the effects of incidents and accidents is optimised through compliance with the BCA. Compliance will be required prior to commencing operations.

31. Complaints Procedure

The operator of the facility will draft a detailed complaints procedure and make it publicly available. This will include, but not be limited to:

- Name and 24 hour contact details

- Details of how a complaint will be investigated
- Details of how a complaint will be formally responded to
- Procedures and contact information if the complainant is dissatisfied with how the complaint has been handled / resolved

PART H

RELEVANT ACTS, ENVIRONMENTAL PLANNING INSTRUMENTS AND STRATEGIC POLICIES

32. Statutory Planning

32.1 Approvals Process

32.1.1 Designated Development

The application is designated development pursuant to the following:-

- Clause 16(1)(b)(ii), Schedule 3, EPA Regulation, 2000 – the activities will be within 250 metres of a dwelling not associated with the development (see plan at Annexure 'E').
- Clause 32(1)(b)(iii), Schedule 3, EPA Regulation, 2000 – the facility has an intended handling capacity of construction and demolition waste in excess of 30,000 tonnes per year.
- Clause 32(1)(c), Schedule 3, EPA Regulation, 2000 – the facility has an intended handling capacity of greenwaste in excess of 5,000 tonnes per year.
- Clause 32(1)(d)(ii), Schedule 3, EPA Regulation, 2000 – the sodicity and salinity levels of the soil are high, exceeding the trigger values specified in cl.38 (refer to the Martens report at Annexure 'P' and Table 8 of this EIS).

The categories of designated development, as specified in the EPA Reg's, for the proposed facility are:

- Crushing, grinding or separating works (Schedule 3, clause 16)
- Waste Management Facilities or Works (Schedule 3, clause 32)

The proposal will require approvals as follows:

- Development consent from the relevant consent authority (Liverpool Council)
- License from EPA pursuant to Protection of the Environment Operations Act 1997 – SS43(b), 48 and 55 (proposal is a scheduled activity pursuant to Clauses 16(2), 34(3), 41(3) and 42(3) Schedule 1 of the Act)

32.2 Local Matters

32.2.1 Liverpool Local Environmental Plan 2008

➤ Aims / objectives of Plan

The particular aims of LLEP 2008, together with comments where relevant, are as follows:-

(a) to encourage a range of housing, employment, recreation and services to meet the needs of existing and future residents of Liverpool,

Comment: The proposed RRF will generate employment.

(b) to foster economic, environmental and social well-being so that Liverpool continues to develop as a sustainable and prosperous place to live, work and visit,

Comment: The proposed RRF will generate economic activity, is environmentally sustainable and has manageable impacts.

(c) to provide community and recreation facilities, maintain suitable amenity and offer a variety of quality lifestyle opportunities to a diverse population,

Comment: The proposed RRF will maintain suitable amenity, provided the mitigation measures proposed are installed and maintained.

(d) to strengthen the regional position of the Liverpool city centre as the service and employment centre for Sydney's south west region,

Comment: The proposed RRF will generate employment.

(e) to concentrate intensive land uses and trip-generating activities in locations most accessible to transport and centres,

Comment: The site has access to Elizabeth Drive, M7 motorway and Northern Road.

(f) to promote the efficient and equitable provision of public services, infrastructure and amenities,

Comment: The proposed RRF is important infrastructure for the proponent, which will have flow on benefits to people in the local area in terms of employment generation and increased opportunity for resource recovery.

(g) to conserve, protect and enhance the environmental and cultural heritage of Liverpool,

Comment: The environment surrounding the site will be protected through the mitigation measures proposed.

(h) to protect and enhance the natural environment in Liverpool, incorporating ecologically sustainable development,

Comment: The environment surrounding the site will be protected through the mitigation measures proposed. The proposal incorporates aspects of ecologically sustainable development, as discussed further in section 34 of this EIS.

(i) to minimise risk to the community in areas subject to environmental hazards, particularly flooding and bush fires,

Comment: The subject land is not in an area subject to environmental hazards

(j) to promote a high standard of urban design that responds appropriately to the existing or desired future character of areas.

Comment: Not relevant.

➤ **Zone and Zone Objectives**

The subject site is located in the RU1 Primary Production zone pursuant to Liverpool LEP 2008.

Clause 2.3(2) LLEP 2008 provides as follows:

(2) The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

RU1 zone

The proposed RRF is prohibited in the RU1 zone, relying on State Environmental Planning Policy (Infrastructure) 2007 for permissibility, as the RU1 Primary Production zone is a “prescribed zone” under the SEPP (Infrastructure) 2007 for the purposes of Waste or Resource Management Facilities (see Clauses 120 and 121 of the SEPP (Infrastructure) 2007).

Clause 2 of SEPP (Infrastructure) 2007 outlines the aims of the Policy, relevantly:

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State by:

- (a) improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services; and*
- (b) providing greater flexibility in the location of infrastructure and service facilities: and*

...

The objectives of any zone create a framework from which the permissible land uses follow. It follows that if a particular land use is permitted within a zone, then it must be capable of being consistent with the objectives of the zone, subject to the specific circumstances of the land in question. Each individual development application must demonstrate how the particular permissible land use complies with, or else does not offend or hinder the attainment of, the relevant objectives of the zone. The corollary suggests that where a particular land use is prohibited, that prohibited land use is unlikely to achieve consistency with the objectives of the zone.

Clause 8(1) of the SEPP (Infrastructure) 2007 provides:

If there is an inconsistency between this Policy and any other environmental planning instrument, whether made before or after the commencement of this Policy, this Policy prevails to the extent of the inconsistency.

There is a clear intent identified within Clause 8(1) of the SEPP (infrastructure) 2007 that it is the primary instrument, which applies for those proposals that seek to rely on it, at the expense of planning controls in an LEP. This gives rise to a potential inconsistency between the SEPP (Infrastructure) 2007 and the RU1 zone objectives contained in LLEP 2008. Indeed, the SEPP (Infrastructure) 2007 commences with the premise that obstacles to its aims may be found in local environmental planning instruments, hence the need to “...provide greater flexibility in the location of infrastructure and services facilities”.

The effect of Clause 8(1), whilst relied upon in the current application for permissibility, is not restricted to the issue of permissibility. Any clause within LLEP 2008, including zone objectives, which when applied to the current proposal could give rise to a refusal, is inconsistent with the SEPP (Infrastructure) 2007. Inconsistency clearly applies beyond the issue of permissibility under a local environmental plan.²¹ Although regard has to be had to the zone objectives, it would be contrary to the intent of SEPP (Infrastructure) and defeat its policy purpose if inconsistencies between the SEPP and the zone objectives were used as a ground to refuse consent to this development. Where the RU1 zone objectives are inconsistent with the objectives of the SEPP then cl 8(1) provides that the SEPP prevails to the extent of the inconsistency²².

The RU1 zone objectives, contained within LLEP 2008 and reproduced below, may be broadly summarised as giving primacy to primary industry / agriculture and minimising conflict with land uses in adjoining zones, particularly urban uses. There is a want of consistency or congruity and a lack of accordance or harmony²³ between the RU1 zone objectives and the aim of the SEPP (Infrastructure) 2007 to “... facilitate the effective delivery of infrastructure across the State by... improving regulatory certainty ... through a consistent planning regime ... and providing greater flexibility in the location of infrastructure and service facilities”.

It would be difficult, if not impossible, to give effect to the broader range of land uses permitted under the SEPP (Infrastructure) 2007 within the RU1 zone, if zone objectives to give primacy to primary industry / agriculture were adhered to. The same may apply for land use conflict objectives.

As noted, there is a clear statutory intention to alter the application of LEP's by the SEPP (Infrastructure) 2007. In the current circumstance, some RU1 zone objectives may be inconsistent with the SEPP (Infrastructure) 2007. Even if the proposal is inconsistent in part with the zone objectives (which is not conceded in this circumstance), the failure to comply with the RU1 zone objectives cannot be a reason for refusal on the basis of inconsistency, as clause 2.3(2) of LLEP 2008 directs the consent authority only to *have regard* to the objectives.

Notwithstanding the above, it can be demonstrated that the subject proposal either complies with, or else does not hinder the attainment of, the relevant objectives of the RU1 zone.

The objectives of the RU1 Primary Production zone, together with comments where relevant, are as follows:-

²¹ *Hastings Point Progress Association Inc v Tweed Shire Council and Anor* [2008] NSWLEC, 180 citing *DEM (Aust) Pty Limited v Pittwater Council* (2004) 136 LGERA 187

²² *Ironlaw Pty Limited v Wollondilly Shire Council (No 3)* [2014] NSWLEC 1057

²³ *Coffs Harbour Environment Centre v The Minister for Planning* (1994) 84 LGERA 324

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*

Comment: - The proposal will not hinder the attainment of this objective. The natural resource base may consist of minerals, timber, water, soil and the like.

The objective is intended to address land uses proposing primary industry production. The objective is designed, in proposals where the land use involves primary industry production, to encourage sustainability. The objective specifies that primary industry production proposals will be sustainable when they maintain and enhance the natural resource base.

The objective is not intended to discourage or prohibit land uses that do not involve primary industry production, but rather specify that where a land use proposal does involve primary industry production, it should be sustainable.

- *To encourage diversity in primary industry enterprises and systems appropriate for the area*

Comment: - The proposal is not for a primary industry enterprise or system. However, the objective applies to the locality broadly, and not necessarily to specific sites. Primary industry enterprises and systems need to be supported by appropriate infrastructure, including waste management facilities. The list of permissible uses for the RU1 zone envisages some uses that are not fundamentally primary industry based. For example, the RU1 zone list of uses permissible with consent includes

- Air transport facilities
- Places of Public Worship
- Funeral homes
- Community facilities
- Group homes

Each of these uses is permissible with consent in the RU1 zone, but not necessarily associated with primary production. The land use table obviously envisages that not every permitted use in the zone, when applied to individual allotments, must be associated with primary production.

Nevertheless, a RRF is a use that supports primary industry enterprises and systems and therefore achieves the objective by “... *encouraging diversity* ...”

- *To minimise the fragmentation and alienation of resource lands.*

Comment: - The proposed development will not increase the fragmentation and alienation of resource lands. The land has not historically been used for resource purposes in terms of primary production or extraction of resources from under the ground. Approval of the development will not sterilise the land from such purposes in the future, albeit environmental and economic factors make future use of the land for such resource-based purposes unlikely.

Fragmentation arises principally from the subdivision of land. The proposed development does not involve subdivision.

The proposal will not alienate resource land. As previously outlined, the land has not been used for resource based purposes and the development will not sterilise the land from possible future resource based activities. Furthermore, the satisfactory town planning and environmental impacts of the proposal will ensure that no unreasonable impacts are generated for existing or possible future surrounding resource based activities on surrounding land.

- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*

Comment: - The proposed facility will not create conflict between land uses within the RU1 zone and land uses within adjoining zones.

Potential impacts on adjoining land uses, as well as mitigation measures where necessary, are discussed elsewhere in this EIS.

- *To ensure that development does not unreasonably increase the demand for public services or public facilities.*

Comment: - The proposal will not increase the demand for public services or public facilities.

- *To ensure that development does not hinder the development or operation of an airport on Commonwealth land in Badgery's Creek.*

Comment: - Refer to section 17 of this EIS.

- *To preserve bushland, wildlife corridors and natural habitat.*

Comment: - The minor area of vegetation to be cleared will have no significant impact, according to the Woodlands report.

➤ **Land Use permissibility – RRF**

A **Resource Recovery Facility** is not listed as a permissible use by the Land Use table for the RU1 Primary Production zone contained in LLEP, so is therefore a prohibited use.

As outlined previously, this application relies on State Environmental Planning Policy (Infrastructure) 2007 to enable the RRF, as the RU1 Primary Production zone is a "prescribed zone" under the SEPP (Infrastructure) for the purposes of Waste or Resource Management Facilities (see Clauses 120 and 121 of the SEPP (Infrastructure)).

➤ **Other Relevant Clauses within LLEP 2008**

Clause 5.9 – Preservation of trees or vegetation

This clause applies to species or kinds of trees or other vegetation that are prescribed for the purposes of this clause by a development control plan made by the Council. However, we are not aware of any DCP that is prescribed for the purposes of this clause.

Nevertheless, three tree species are proposed to be removed from the site - Cabbage Gum *Eucalyptus amplifolia*, Grey Box *E. moluccana*, and Forest Red Gum *E. tereticornis*.

Clause 7.18 – Development in areas subject to potential airport noise

The land is shown on the Airport Noise Map (LLEP 2008) being affected by Australian Noise Exposure Forecast (ANEF) between 30 and 35 units (see Figure 6). Nevertheless, the proposed development is not one of the categories specified by the clause and therefore the clause has no effect in this circumstance.

32.2.2 Liverpool Development Control Plan 2008

PART 1 – Requirements for all developments (where relevant)

Reference	Controls	Response
2. Tree Preservation		Refer to Woodlands report (Appendix 'I')
3. Landscaping and Incorporation of Existing Trees	Various	Refer to Landscape Plan (Appendix 'G')
4. Bushland and Fauna Habitat Preservation	Various	Refer to Woodlands report (Appendix 'I')
6. Water Cycle Management	Various	Refer to WCMS (Appendix 'O')
8. Erosion and Sediment Control	Various	Refer to WCMS (Appendix 'O')
10. Contaminated Land Risk	Investigation	Refer to Martens PESA report (Appendix 'N')
11. Salinity Risk	Investigation	Refer to ESA – Soil report (Appendix 'P')
13. Weeds		Refer to Weed Management report (Appendix 'T')
15. Onsite sewage disposal		A portable WC is proposed. Whilst the DCP guidelines suggest on site effluent disposal, this variation is considered justified because the site is effectively a “work site”, with minimal workers deployed to operate the facility. A portable system is considered satisfactory and it is requested Council vary its DCP guideline in this regard.
16. Aboriginal Archaeology	Investigation	Refer to Artefact report (Appendix 'J')
17. Heritage and Archaeological Sites		No sites within 500 metres of the subject land

20. Car Parking and Access	Refer to Parking and Traffic Consultants report (Appendix 'L')
22. Water Conservation	Refer to WCMS (Annexure O)

Table 25
Part 1 – Liverpool DCP 2008

PART 5 – Rural and E3 Zones (where relevant)

Reference	Controls	Response
1. Site Planning		
2. Setbacks	Martin Road 20m Lawson Road 20m Side setbacks	Complies except for the lunch room and WC which are within a 20m setback to Martin Road. Variation is reasonable given their low profile and limited visibility having regard to the existing acoustic wall located along the front boundary.
4. Building Design, Style and Streetscape	8.5m height limit, building materials of natural earthy tone	The storage shed has a maximum height of approximately 9.5m. The setback of the shed, particularly from the roads, combined with proposed perimeter landscaping will ensure there are no adverse character or amenity impacts arising from the variation. Building colours can be conditioned to comply.
5. Landscaping and Fencing	Front fencing to have a maximum height of 1.2m if solid or 1.8m if transparent and not to comprise chain wire, metal sheeting, brushwood or electric fencing. Side and rear fencing not to exceed 1.8m	2.5m acoustic fencing either exists or is proposed to certain boundaries. The proposed acoustic fencing is consistent with the height and style of existing fencing and will provide safety and acoustic benefits. Variation to the control is therefore warranted.
6. Car Parking and Access	Investigation	Refer to Parking and Traffic report (Appendix 'L')
7. Amenity and Environmental Impact	Noise, air and water cycle	Addressed in other areas of this EIS
8. Site Services		Waste management will be provided by the proponent; A numbered letterbox will be installed at the gate in Martins Road; All works will be funded by the proponent; Existing electrical supply is adequate; A portable WC is proposed

Table 26
Part 5 – Liverpool DCP 2008

32.3 State Matters In General

32.3.1 Environmental Planning and Assessment Act 1979 (EPA Act) and Regulation (EPA Reg's)

➤ EPA Act

Objects of the Act

The objects of this Act are:

- (a) *To encourage:-*
 - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;*
 - (ii) *the promotion and coordination of the orderly and economic use and development of land;*
 - (iii) *the protection, provision and coordination of communication and utility services;*
 - (iv) *the provision of land for public purposes;*
 - (v) *the provision and coordination of community services and facilities, and*
 - (vi) *ecologically sustainable development, and*
 - (vii) *the provision and maintenance of affordable housing, and*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment*

Comment: This proposal is either consistent with, or else does not hinder the attainment of, the relevant objects of the Act.

In relation to (a)(i), this proposal promotes the proper management and development of this site. Whilst the subject site is contained in the RU1 Primary Production zone pursuant to LLEP, other non-agricultural uses are permitted by the LLEP or the SEPP (Infrastructure) 2007, which represents good management and development of the site. It is also noteworthy that the site has remained undeveloped for many years, and there are a number of non-agricultural uses in existence within the immediate vicinity of the subject site.

The various environmental reports provided with this application indicate that the proposed facility will not result in environmental harm. On the contrary, the proposal will result in increased efficiency of resource recovery and a commensurate reduction in waste to landfill.

The proposal will promote the economic welfare of the community in several ways. Initially it will provide employment during the construction of the facility. Secondly it will provide ongoing employment to operate the facility, which will have a trickle-down effect on the local economy.

Therefore, it is considered that the proposed facility is consistent with this objective.

In relation to (a)(ii), the proposed facility encourages the promotion and coordination of the orderly and economic use and development of land. As previously discussed, the existing RU1 zone foresees land uses other than agriculture. The land use table in the LLEP permits, subject to consent, a range of land uses for the zone. Indeed, the SEPP (Infrastructure) 2007 acts to specifically override prohibitions in the RU1 Primary Production zone. Theoretically, the subject site could be used for an agricultural purpose. However, since its creation, the site has not been used for an agricultural purpose, other than potentially the grazing of a handful of animals at infrequent times. The reasons for this may be many and varied. Nevertheless, it is reasonable to assume that, had there been a demand for the land to be used for a specific agricultural purpose, it would have been used for that purpose. This proposal is a complementary land use that represents a high economic use of the land, without placing unmanageable demand on overall agricultural production of the area.

In relation to (a)(vi), ecologically sustainable development (ESD) has been defined by The Australian National Strategy for Ecologically Sustainable Development “*development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends*”.

The principles of ESD are discussed in more detail in **Part I, Section 34** of this EIS.

Section 77A(1)

Pursuant to S. 77A(1) this proposal is designated development because it falls with categories specified in:

- Clause 16(1)(b)(ii), Schedule 3, EPA Regulation, 2000 – the activities will be within 250 metres of a dwelling not associated with the development.
- Clause 32(1)(b)(iii), Schedule 3, EPA Regulation, 2000 – the facility has an intended handling capacity of construction and demolition waste in excess of 30,000 tonnes per year.
- Clause 32(1)(c), Schedule 3, EPA Regulation, 2000 – the facility has an intended handling capacity of greenwaste in excess of 5,000 tonnes per year.
- Clause 32(1)(d)(ii), Schedule 3, EPA Regulation, 2000 – the sodicity and salinity levels of the soil are high, exceeding the trigger values specified in cl.38.

The categories of designated development for the proposed facility are:

- Crushing, grinding or separating works (Schedule 3, clause 16)
- Waste Management Facilities or Works (Schedule 3, clause 32)

Section 79C Evaluation

Section 79C of the EPA Act outlines matters for consideration in the evaluation and assessment of any development application. The relevant matters are reproduced

Reference	Matter	Response
S79C(1)(a)(i)	Any EPI	State Environmental Planning Policies (SEPP)s – see Section 32.3.2 Regional Environmental Plans (REP)s – see Section 32.5 Local Environmental Plans (LEP)s – see Section 32.2.1
S79C(1)(a)(ii)	Any proposed EPI	There are no proposed EPI's of relevance to this proposal
S79C(1)(a)(iii)	Any DCP	See Section 32.2.2
S79C(1)(a)(iia)	Planning agreements	There are no planning agreements entered into, nor are there any planning agreements offered
S79C(1)(a)(iv)	EPA Reg's	See summary below
S79C(1)(b)	Likely impacts	This EIS identifies likely impacts, assesses the impact and designs or proposes mitigation / management / monitoring measures where relevant
S79C(1)(c)	Suitability of the site	The site selection process is outlined in Part C, Section 5.3 . The site is considered suitable because mitigation / management measures can be designed and implemented in a cost effective manner to satisfactorily ameliorate potential adverse impacts
S79C(1)(d)	Submissions	This EIS satisfactorily addresses all issues raised by stakeholders (see Part D, Sections 6 to 9)
S79C(1)(e)	Public interest	<p>For the following reasons it is considered that the proposal is in the public interest:-</p> <ul style="list-style-type: none"> • It potentially increases resource recovery • It provides a minor economic stimulus to the local economy • It does not result in rural land use conflict • It is consistent with the aims and objectives of the relevant plans and policies, which were developed in part to protect the public interest • The environmental impacts are negligible <p>Part E, Section 18 provides an analysis of community and economic effects, which considers social and economic issues relating to the proposal.</p>

Table 27

Section 79C assessment

➤ EPA Reg's

- For the purposes of Schedule 2, Clause 6 (EPA Reg's), refer to the Certification page (p2 of this EIS)
- For the purposes of Schedule 2, Clause 7 (EPA Reg's), refer to **Table 1** of this EIS.

32.3.2 State Environmental Planning Policies

The following State Environmental Planning Policies (SEPP)s are relevant to this proposal:

- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy No 33 – Hazardous and Offensive Development
- State Environmental Planning Policy No 44 – Koala Habitat Protection
- State Environmental Planning Policy No 55 – Remediation of Land
- State Environmental Planning Policy (Sydney Region Growth Centres) 2006

➤ **State Environmental Planning Policy (Infrastructure) 2007**

A.(1.1) Aims, objectives (clause 2)

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State by:

- (a) improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and*
- (b) providing greater flexibility in the location of infrastructure and service facilities, and*
- (c) allowing for the efficient development, redevelopment or disposal of surplus government owned land, and*
- (d) identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development), and*
- (e) identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and*
- (f) providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing.*

Comment:

In relation to (b), this SEPP nominates the RU1 Primary Production zone as a “prescribed zone” in relation to Waste or Resource Management Facilities (see clause 120), notwithstanding the land use table contained in LLEP 2008 does not list it as a permissible use. The “flexibility” referred to in this aim is achieved in this instance.

It is also noted that the SEPP (Infrastructure) 2007 obviously foresees that in some circumstances land zoned RU1 Primary Production (which by its nature may have some agricultural potential) may be put to a higher and better use for the purposes of important infrastructure projects. This is the case in this circumstance and achieves the flexibility aim of the SEPP (Infrastructure) 2007.

In relation to (e), it is noted that the matters to be considered in Clause 123 of the SEPP relate to landfill proposals and so are not relevant to this proposal.

Relationship to other environmental planning instruments (clause 8)

This SEPP (Infrastructure) 2007 prevails over LLEP in the event of an inconsistency. The SEPP enables the proposed Resource Recovery Facility and recycling of construction and demolition material despite the provisions of LLEP.

Definitions (clause 120)

Prescribed zone – the main site is contained in a “prescribed zone”, being zone RU1 Primary Production pursuant to LLEP.

The relevant definition is:-

resource recovery facility means a facility for the recovery of resources from waste, including such works or activities as separating and sorting, processing or treating the waste, composting, temporary storage, transfer or sale of recovered resources, energy generation from waste gases and water treatment, but not including re-manufacture of material or goods or disposal of the material by landfill or incineration.

➤ State Environmental Planning Policy No 33 – Hazardous and Offensive Development

Aims, objectives (clause 2)

This Policy aims:

- (a) to amend the definitions of hazardous and offensive industries where used in environmental planning instruments, and*
- (b) to render ineffective a provision of any environmental planning instrument that prohibits development for the purpose of a storage facility on the ground that the facility is hazardous or offensive if it is not a hazardous or offensive storage establishment as defined in this Policy, and*
- (c) to require development consent for hazardous or offensive development proposed to be carried out in the Western Division, and*
- (d) to ensure that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account, and*
- (e) to ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact, and*
- (f) to require the advertising of applications to carry out such development*

Definitions (clause 3)

Section 3 defines potentially hazardous industry and potentially offensive industry as follows:

potentially hazardous industry means a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality:

- (a) to human health, life or property, or
 - (b) to the biophysical environment,
- and includes a hazardous industry and a hazardous storage establishment.

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

The development could be characterised as a potentially offensive industry and as a precautionary approach will be treated as such for the purpose of this EIS. The development is not a potentially hazardous industry.

Departmental Guidelines (clause 8)

In determining a development application for a potentially offensive industry, consideration must be given to the Department of Planning's current guidelines or circulars relating to offensive development.

There are no current guidelines or circulars relating specifically to offensive development.

Preliminary Hazard Analysis (clause 12)

As the development is not a potentially hazardous industry, a preliminary hazard analysis is not required under clause 12.

Matters for Consideration (clause 13)

The following matters must be considered by the consent authority:-

- (a) current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development, and

Comment: There are no current guidelines or circulars relating specifically to offensive development.

The SEAR's issued by the DPE require a Preliminary Risk Screening Assessment, as outlined in the document entitled *Applying SEPP 33 Hazardous and Offensive Development Application Guidelines (2011)*, prepared by Department of Planning. The Risk Screening Assessment is documented at **Appendix 'R'**.

There will be no diesel fuel stored at the facility. Diesel fuel transported to the site for use by the machinery is not of sufficient quantity or regularity to warrant further investigation under SEPP 33.

(b) whether any public authority should be consulted concerning any environmental and land use safety requirements with which the development should comply, and

Comment: The following public authorities have been consulted in relation to this proposal:

- Environment Protection Authority (EPA)
- Roads and Maritime Services (RMS)
- Office of Environment and Heritage (OEH)
- Commonwealth Dept Infrastructure and Regional Development (DIRD)

The agency correspondence is contained in **Appendix 'B'**. Tables showing how the issues raised by the agencies have been addressed are contained in **Section 6**.

(c) in the case of development for the purpose of a potentially hazardous industry – a preliminary hazard analysis prepared by or on behalf of the applicant, and

Comment: The proposed development is not a potentially hazardous industry.

(d) any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application), and

Comment: Details of alternative considerations are addressed in **Section 5** of this EIS.

(e) any likely future use of the land surrounding the development

Comment: The land immediately surrounding the main site is zoned RU1 Primary Production. The zone objectives indicate that the purpose of this zone is, in part, to ensure surrounding land uses do not hinder the development or operation of an airport on Commonwealth land in Badgery's Creek. This matter is discussed in detail in **Section 17** of this EIS.

The subject land and surrounds has been identified as "Future Industrial" in the SEPP (Sydney Growth Centres) 2006. The proposed development would be consistent with this future land use.

➤ **State Environmental Planning Policy No 44 – Koala Habitat Protection (SEPP 44)**

The Liverpool LGA is listed in Schedule 1 of SEPP 44. SEPP 44 requires that land in relation to which a development application has been made and which has an area of more than 1 hectare is subject to an assessment of whether it contains potential Koala habitat. Potential Koala habitat is an area of native

vegetation where Koala feed tree species listed under Schedule 2 of SEPP 44 constitute at least 15% of the total number of trees in the upper and lower strata of the tree component.

The main site does not constitute 'core Koala habitat' under SEPP 44.

➤ **State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)**

The object of SEPP 55 is to provide for a Statewide planning approach to the remediation of contaminated land. In particular, SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment:

- a) by specifying when consent is required, and when it is not required, for a remediation work, and
- b) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and
- c) by requiring that a remediation work meet certain standards and notification requirements.

In relation to Clause 7 of SEPP 55, the contamination report by Martens found bonded ACM fragments at one location on the site and recommends an asbestos survey and the preparation of a remedial action plan (RAP).

At Clause 9.2 of the contamination report, Martens notes that the remediation works are considered Category 2 works under SEPP 55. Pursuant to cl 14 of SEPP 55, the proposed remediation works do not require consent.

➤ **State Environmental Planning Policy (Sydney Growth Centres) 2006 (Growth Centres SEPP)**

The land is located within the South West Growth Centre, as identified in the Growth Centres SEPP. The subject land and surrounding area has not been rezoned by the Growth Centres SEPP. Nevertheless, it is relevant to consider its provisions.

➤ **Aims (Clause 2)**

The aims of this Policy are (in conjunction with amendments to the regulations under the Act relating to precinct planning) as follows:

- (a) to co-ordinate the release of land for residential, employment and other urban development in the North West and South West growth centres of the Sydney Region,*
- (b) to enable the Minister from time to time to designate land in those growth centres as ready for release for development,*
- (c) to provide for comprehensive planning for those growth centres,*
- (d) to enable the establishment of vibrant, sustainable and liveable neighbourhoods that provide for community well-being and high quality local amenity,*
- (e) to provide controls for the sustainability of land in those growth centres that has conservation value,*

- (f) to provide for the orderly and economic provision of infrastructure in and to those growth centres,
- (g) to provide development controls in order to protect the health of the waterways in those growth centres,
- (h) to protect and enhance land with natural and cultural heritage value,
- (i) to provide land use and development controls that will contribute to the conservation of biodiversity.

Comment:

The proposed development will not prevent the attainment of Plan aims.

➤ Development In Growth Centres Under Other Environmental Planning Instruments (Clause 7B)

The land is contained within the South West Growth Centre – Biodiversity Certification area pursuant to Schedule 7, Part 7 *Threatened Species Conservation Act 1995*. Therefore, this proposal is taken to be carried out under the Growth Centres SEPP.

➤ Development Applications in Growth Centres – matters for consideration until finalization of precinct planning for land (Clause 16)

Precinct planning for the area of the South West Growth Centre where the subject land is situated in not yet finalised. Therefore, pursuant to clause 16, certain matters must be considered in the assessment of this application.

Consideration	Response
(a) whether the proposed development will preclude the future urban and employment development land uses identified in the relevant growth centre structure plan;	The South West Growth Centre Structure Plan identifies the area where the subject land is located as "industrial/employment" land. The proposed development has characteristics of industrial-type development and is therefore consistent with the structure plan
(b) whether the extent of the investment in, and the operational and economic life of, the proposed development will result in the effective alienation of the land from those future land uses;	The proposal is not of such a scale that it would preclude alternative development of the land at some future time. With the exception of the storage shed, other structures are portable
(c) whether the proposed development will result in further fragmentation of land holdings;	The proposal does not involve subdivision and therefore will not result in fragmentation of land holdings
(d) whether the proposed development is incompatible with desired land uses in any draft environmental planning instrument that proposes to specify provisions in a Precinct Plan or in clause 7A	The proposed development has characteristics of an industrial-type development and is therefore consistent with the proposed future industrial use identified in the Growth Centres SEPP
(e) whether the proposed development is consistent with the precinct planning strategies and principles set out in any publicly exhibited document that is relevant to the development;	Refer to comments above

(f) whether the proposed development will hinder the orderly and co-ordinated provision of infrastructure that is planned for the growth centre	Refer to comments above. The land is located under the flight path for the Badgerys Creek Airport. The proposed development will have not hinder the construction or operation of the airport
(g) in the case of transitional land – whether (in addition) the proposed development will protect areas of aboriginal heritage, ecological diversity or biological diversity as well as protecting the scenic amenity of the land	The subject land is not transitional land

Table 28

Clause 16, SEPP (Sydney Growth Centres) 2008 considerations

32.3.3 Other Relevant Acts

➤ Contaminated Land Management Act 1997 (NSW)

The primary purpose of the *Contaminated Land Management Act 1997* (NSW) (CLM Act) is to establish a process for investigating and (where appropriate) remediating land areas where contamination presents a significant risk of harm to human health or some other aspect of the environment. The Act sets out criteria for determining whether such a risk exists and gives the relevant Department the power to:

- declare an investigation site and order an investigation
- declare a remediation site and order remediation to take place
- agree to a voluntary proposal to investigate or remediate a site

Refer to **Section 19** of this EIS in relation to the Martens contamination report (**Appendix 'N'**).

➤ Native Vegetation Act 2003 (NSW)

The *Native Vegetation Act 2003* (NSW) (NV Act) provides for the protection from clearing of native vegetation, primarily within regional areas of NSW.

Part 3, Division 4, Clause 25 (f) of the NV Act states; "any clearing that is, or is part of, designated development within the meaning of the EPA Act 1979, for which development consent has been granted under that Act" is considered excluded clearing. Therefore, upon the granting of development consent for this application, the clearing of the minor native vegetation on this site will be excluded from the provisions of the NV Act.

➤ Threatened Species Conservation Act 1995 (NSW)

The objectives of the *Threatened Species Conservation Act 1995* (TSC Act) are to prevent the extinction and promote the recovery of threatened species, populations, ecological communities and critical habitat in NSW. It also aims to eliminate or manage key threatening processes. Schedule 1, 1A and 2 of the TSC Act provide lists of species, populations and ecological communities that are endangered, vulnerable or extinct.

The land is located in the area covered by the South West Growth Centre – Biodiversity Certification. Consequently, the provisions of section 126I(3) of the TSC Act apply, which state:

A consent authority, when determining a development application in relation to development on biodiversity certified land under Part 4 of the Planning Act, is not required to take into consideration the likely impact of the development on biodiversity values (despite any provision of the Planning Act or any regulation or instrument made under that Act).

Therefore, the proposal is consistent with the provisions of the TSC Act.

➤ **National Parks and Wildlife Act (NSW)**

The *National Parks and Wildlife Act 1974* (NPW Act), in part, provides for the conservation of objects, places or features of cultural value within the landscape, including places, objects and features of significance to Aboriginal people as well as places of historic significance.

Refer to **Section 12** of this EIS in relation to the Artefact report (**Appendix ‘J’**).

➤ **Heritage Act 1997 (NSW)**

When a site is identified as being of heritage significance or has archaeological potential, proposals may require approval under the *Heritage Act 1977*, additional to other statutory approvals and permits. Such is not the case with the subject proposal.

➤ **Protection of the Environment Operations Act (NSW)**

The proposal is a “scheduled activity” pursuant to the *Protection of the Environment Operations Act 1997*, (POEO Act) and therefore is required to be licensed.

Schedule 1 – Scheduled Activities outlines activities for which a license may be required under the POEO Act. In particular:

- Clause 12 – Composting (relating to the chipping and mulching);
- Clause 16 – Crushing grinding or separating;
- Clause 34 – Resource recovery;
- Clause 41 – Waste Processing (non thermal treatment); and
- Clause 42 – Waste storage

In regard to the abovementioned Clauses, the following information is provided to assist in determining whether licenses will be required under this Act.

Clause 16 – Crushing, grinding or separating

In accordance with **Table 4** of this EIS, the total construction and demolition waste anticipated for this facility is 50,000 tonnes per annum. It is therefore concluded that this is a 'Scheduled Activity' under Clause 16, Schedule 1 of the POEO Act.

Clause 34 – Resource recovery

In accordance with **Table 4** of this EIS, the total amount of recyclables anticipated for this facility is 10,000 tonnes per annum. Given that the proposed facility is a *resource recovery facility* the recyclables will be sorted and transported from the site as quickly as possible. Theoretically, at 10,000 tonnes per year, if the recyclables were transported from the site weekly, then 10,000 divided by 52 = 192 tonnes per week would be the maximum amount of recyclables at the facility at any given time.

However, the schedule defines **recovery of general waste**, meaning the receiving of waste (other than hazardous waste, restricted solid waste, liquid waste or special waste) from off site and its processing, otherwise than for the recovery of energy. One of the thresholds provided in the schedule is 30,000 tonnes of waste per year. The proposed facility seeks approval to receive in excess of 30,000 tonnes of general waste (non-putrescible, general solid waste including construction and demolition waste) per year.

It is therefore concluded that this is a 'Scheduled Activity' under Clause 34, Schedule 1 of the POEO Act.

In relation to waste tyres, it is not anticipated that there would be more than 5 tonnes or 500 tyres at any time, nor would there 5000 tonnes of tyres per year.

Clause 41 – Waste processing (non thermal treatment)

Clause 41(1) provides the following definition:

non-thermal treatment of general waste, meaning the receiving of waste (other than hazardous waste, restricted solid waste, liquid waste or special waste) from off site and its processing otherwise than by thermal treatment.

Therefore, Clause 41 of Schedule 1 applies to the proposed development.

Pursuant to subclause (3) and the accompanying Table, under the activity "non thermal treatment of general waste", the facility will receive in excess of 30,000 tonnes of general waste (non-putrescible, general solid waste including construction and demolition waste) per annum.

It is therefore concluded that this *is* a 'Scheduled Activity' under Clause 41, Schedule 1 of the POEO Act.

Clause 42 – Waste storage

The facility will receive more than 30,000 tonnes of waste from off-site per annum. It is therefore concluded that this is a 'Scheduled Activity' under Clause 42(3)(d), Schedule 1 of the POEO Act.

➤ **Water Management Act 2000 (NSW)**

The *Water Management Act 2000* (WM Act) aims to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations.

No work is proposed within 40 metres of a mapped watercourse. Consequently, the proposal will not require a Controlled Activity Approval from the NSW Office of Water.

32.4 Metropolitan Planning Context

32.4.1 Draft Metropolitan Strategy for Sydney to 2031

This Strategy contains a framework for growth, which sets the overall approach for Sydney as a globally competitive city, linking infrastructure to growth and providing opportunity and choice in housing and jobs for all residents.

The plan also contains a strategy for western Sydney, which will see unprecedented growth and change to 2031 and beyond, with a new, integrated approach to planning for growth to ensure that western Sydney, and particularly outer western Sydney, reaches its potential to 2031. It includes plans for a state of the art airport and business lands at Badgerys Creek, maximising business to business connections, creating a new gateway to Sydney and delivering modern 21st century business parks and logistics precincts.

The Strategy divides the metropolitan area into 6 sub-regions, one of which is the South West, covering the location of the subject land.

It is noted that the Strategy is primarily intended to inform decisions regarding forward planning (rezoning applications, growth management strategies and the like). By their nature, those forward planning exercises involve broad-brush approaches to large land areas. By contrast, the subject proposal is a single application for a single parcel, made permissible with consent by the flexibility introduced by the deliberate objectives of the SEPP (infrastructure) 2007.

The proposal is consistent in broad terms with the Strategy, because it locates a land use with industrial characteristics within an area intended for industrial and employment generating uses.

32.4.2 South West Rail Link Extension

The South West Rail Link (SWRL) extension will provide transport services to and from Badgerys Creek Airport, as well as other areas.

The subject land is in proximity to the SWRL extension. However, it is not within the designated corridor and will have no impact on its progress.

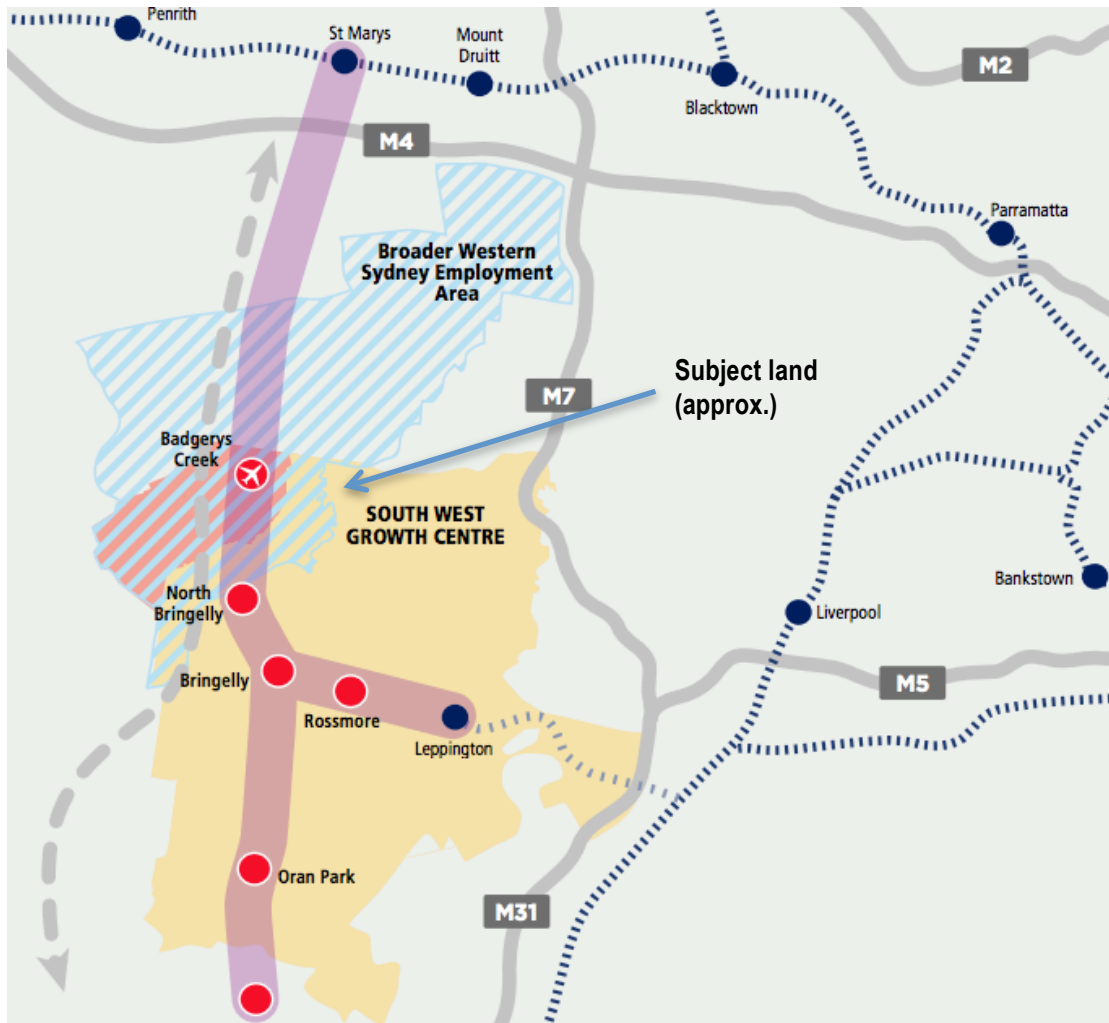


Figure 8
South West Rail Link extension

32.4.3 Proposed M9 Orbital

The proposal will have no adverse impact on the progress of the proposed M9 Orbital.

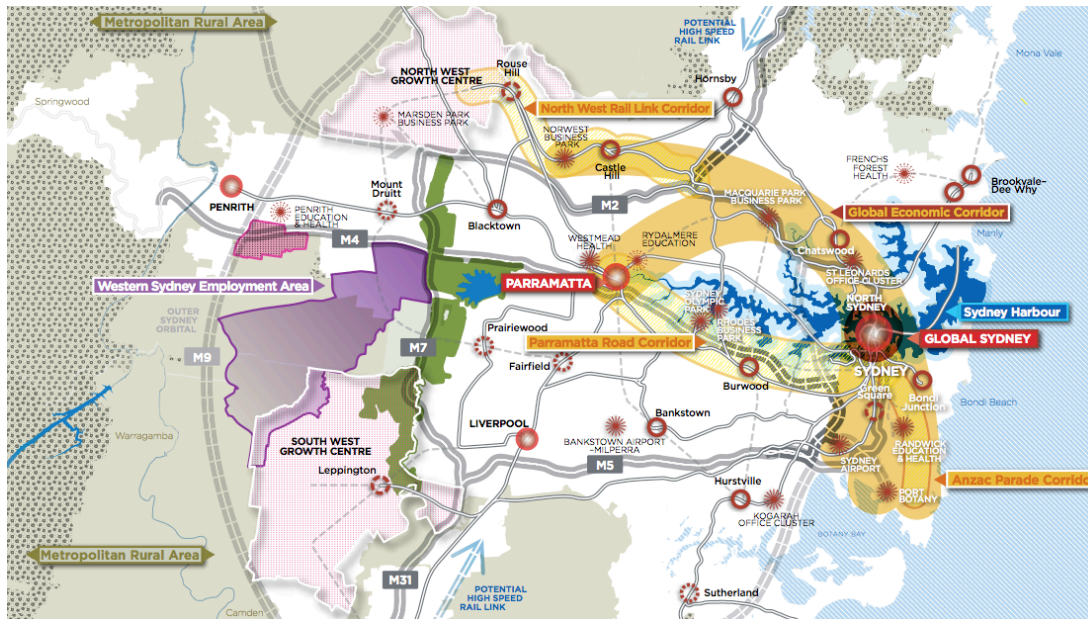


Figure 9
Draft Metro Plan showing indicative location of M9 Orbital

32.5 Sydney Regional Environmental Plans (Deemed State Environmental Planning Policies)

32.5.1 Sydney Regional Environmental Plan No 20 – Hawkesbury – Nepean River (No 2 – 1997)

Aim of Plan

The aim of this plan is to *protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.*

Comment:

Based on the WCMS, the proposed development is not likely to result in a significant adverse impact on the environment of the Hawkesbury-Nepean River system.

General Planning Considerations

Clause 4(1) requires the council to consider the following clause 5 general planning considerations:

- (a) the aim of this plan, and
- (b) the strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy, and
- (c) whether there are any feasible alternatives to the development or other proposal concerned, and

- (d) the relationship between the different impacts of the development or other proposal and the environment, and how those impacts will be addressed and monitored

Comment:

Sub-clause (a) has been addressed above. The action plan in the Draft Hawkesbury-Nepean Environmental Planning Strategy, published by the Department of Urban Affairs and Planning in 1996 and as referenced in sub-clause (b) has likely been superseded. Nonetheless, it is a matter for the Council's consideration.

In relation to (c), an alternative site analysis has been undertaken as required by this part. The analysis is discussed in **Section 5** of this EIS.

In relation to (d), potential environmental impacts have been identified and addressed by the various reports accompanying the application. These relate to

- Flora and fauna – Woodlands report (**Appendix 'I'**)
- Noise – Wilkinson Murray report (**Appendix 'K'**)
- Air Quality – Todoroski report (**Appendix 'M'**)
- Soils – ESA – Soils report (**Appendix 'P'**)
- Stormwater management – WCMS (**Appendix 'O'**)
- Traffic – Parking and Traffic report (**Appendix 'L'**)
- Aboriginal Cultural heritage – Artefact report (**Appendix 'J'**).

In each case, the proposal has been assessed in accordance with appropriate guidelines and standards. On balance, the expert consultant's reports conclude that the proposal will have a manageable environmental impact in the locality.

Specific Planning Considerations

(1) Total Catchment Management

Based on the conclusions of the various expert reports accompanying the application, specifically the WCMS, it is considered that the proposal will not result in a significant adverse environmental impact on the catchment.

(2) Environmentally Sensitive Areas

The subject land is not an environmentally sensitive area as defined by the DSEPP.

(3) Water Quality

Based on the WCMS, the quality of receiving waters will be maintained and improved.

(4) Water Quantity

The proposed development will result in minimal overall change to flow characteristics of surface or groundwater in the catchment.

(5) Cultural heritage

There are no cultural heritage items of relevance on the site.

(6) Flora and fauna

The subject site is covered by the South West Growth Centre – Biodiversity Certification.

(7) Riverine scenic quality

The site is remote from the river and will have a negligible impact upon its scenic quality

(8) Agriculture / aquaculture and fishing

In regard to (a) and (b), whilst the proposed facility is not an agricultural use, it is a use that supports agriculture by accommodating a necessary piece of infrastructure on a site that has never been required for agricultural production. Not every site in the rural zones is going to be used for an agricultural purpose. This is foreseen by the SEPP (Infrastructure) 2007, which deliberately intends to permit infrastructure projects, such as the subject proposal, within the RU1 Primary Production zone, amongst others.

In regard to (c) and (d), the proposed facility will not produce any impacts that would limit or prohibit agriculture on adjoining sites.

The development will sustain its use for many years to come, thereby satisfying (e).

In relation to (f), the development will have no impact on aquaculture.

(9) Rural residential development

Not relevant

(10) Urban development

Not relevant

(11) Recreation and Tourism

Not relevant

(12) Metropolitan Strategy

- (a) Consider the impacts of transport infrastructure proposals on water quality and air quality.*

Comment: - Not relevant.

- (b) Consider the impacts of metropolitan waste disposal on water quality.*

Comment: - The proposal provides additional opportunity for the proponent to recover resources from waste that may otherwise go to landfill.

- (c) Consider the impacts of development on air quality.*

Comment: - This aspect has been considered in the Todoroski report.

- (d) Consider the need for waste avoidance, waste reduction, reuse and recycling measures.*

Comment: - This proposal will increase the potential for waste avoidance, waste reduction and reuse and recycling measures.

- (e) Consider the implications of predicted climate change on the location of development and its effect on conservation of natural resources.*

Comment: - Increased resource recovery will lead to a reduction in landfill, which will result in a smaller carbon footprint.

Development Controls

Pursuant to clause 8(5) and 11(18), the following matters are to be considered by the consent authority:

- (a) Any potential for groundwater contamination.*

Comment:

Annexure 'O' demonstrates the development will have satisfactory groundwater impacts.

- (b) The adequacy of the proposed leachate management system and surface water controls.*

Comment: Proposed engineered surface water drainage system and lined water quality treatment measures shall prevent potential contaminants being leached to groundwater.

(c) The long-term stability of the final landform and the adequacy of the site management plan.

Comment: The landform is not being modified by way of excavation or fill.

(d) If extraction of material is involved in the creation or other development of the waste management site, whether the extractive operation will have an adverse impact on the river system.

Comment: No extractive operation is proposed.

32.5.2 Sydney Regional Environmental Plan No 9 – Extractive Industry (No 2 – 1995)

Aims of Plan

This plan aims:

- (a) to facilitate the development of extractive resources in proximity to the population of the Sydney Metropolitan Area by identifying land which contains extractive material of regional significance, and*
- (b) to permit, with the consent of the council, development for the purpose of extractive industries on land described in Schedule 1 or 2, and*
- (c) to ensure consideration is given to the impact of encroaching development on the ability of extractive industries to realise their full potential, and*
- (d) to promote the carrying out of development for the purpose of extractive industries in an environmentally acceptable manner, and*
- (e) to prohibit development for the purpose of extractive industry on the land described in Schedule 3 in the Macdonald, Colo, Hawkesbury and Nepean Rivers, being land which is environmentally sensitive.*

Comment:

The site is in proximity to the Boral Brick pit as referenced at item 2 of Schedule 1 of SREP 9. Consistent with aim (c), the development will not encroach on the ability of the Boral pit to release its full potential.

In accordance with clause 16(2), a council must not grant an application for consent to carry out development of land in the vicinity of extractive resource sites unless it is satisfied that, if the development is carried out in accordance with the consent:

- (a) the proposed development will not be adversely affected by noise, dust, vibration or reduced visual amenity from any nearby extractive industry, and*

(b) the proposed development will not in any way adversely affect any existing nearby extractive industry or prevent any such extractive industry from realising its full economic potential by adversely affecting future expansion of the extractive industry of which the council is aware.

Baseline conditions, including those stemming from the operations of Boral, have been considered with respect to noise, dust, vibration and visual amenity. None of those factors justify not proceeding with the proposed development. Impacts of the development on all neighbouring properties including the Boral pit, are satisfactory as addressed elsewhere within this statement. There is no proposal to expand the Boral pit to the subject site.

32.6 Commonwealth Legislation

32.6.1 Commonwealth Environment Protection and Biodiversity Act, 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) aims to protect matters deemed to be of national environmental significance (NES). The EPBC Act lists seven matters of NES, including:

- World heritage properties;
- Places listed on the National Heritage Register;
- Ramsar wetlands of international significance;
- Threatened flora and fauna species and ecological communities;
- Migratory species;
- Commonwealth marine areas; and
- Nuclear actions (including uranium mining)
- If an action (or proposal) will, or is likely to, have a significant impact on any matters of NES, it is deemed to be a Controlled Action and requires approval from the Commonwealth Minister for the Environment. The proposed waste facility and construction of the Crown Public road is not likely to have any significant impacts on any matters of NES and therefore the Proposal does not require approval under the EPBC Act.

The EPBC Act protects the environment, particularly matters of National Environmental Significance (Protected matters). It streamlines national environmental assessment and approvals processes, protects Australian biodiversity and integrates management of important natural and cultural places.

The subject site is covered by the South West Growth Centre – Biodiversity Certification and does not require a referral to the Minister.

32.6.2 Native Title Act, 1993

The Commonwealth *Native Title Act 1993* provides for determinations of native title in Australia. The main objects of the Act are:

- To provide for the recognition and protection of native title;
- To establish ways in which future dealings affecting native title may proceed and to set standards for those dealings;
- To establish a mechanism for determining claims to native title; and
- To provide for, or permit that validation of past Acts, and intermediate period Acts, invalidated because of the existence of native title.

Native Title claims are investigated by the National Native Title Tribunal and determined by the Federal Court of Australia.

No Native Title claims are known to impact the subject land.

33. Strategic Planning

33.1 Introduction

The strategic planning context is dominated by the metropolitan/regional context and the local strategic context.

33.2 Metropolitan/Regional Context

The Draft Metropolitan Strategy for Sydney to 2031 nominates the general area where the subject site is located for future industrial / employment land uses. The proposal is consistent with this nominated future land use type.

33.3 Local Strategic Direction

The Growth Centres SEPP nominates the area where the subject land is located for future industrial uses. The proposal is consistent with this future land use.



Figure 10

Development Control Plan (Edition 2), SEPP (Sydney Growth Centre) 2006

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PART I

ECOLOGICALLY SUSTAINABLE DEVELOPMENT

34. Ecologically Sustainable Development

34.1 Introduction

One of the objectives of the EP&A Act 1979 is *'To encourage ecologically sustainable development'*. The definition of Ecologically Sustainable Development (ESD) adopted by the EP&A Act 1979 is detailed in Section 6(2) of the *Protection of the Environment Operations Act 1991* (POEO). The four principles of ESD defined under this Act are:

- The precautionary principle – if there are any threats of serious or irreversible environmental damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- Inter-generational equity – the present generation should ensure the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations;
- Conservation of biological diversity and ecological integrity – this is a fundamental consideration; and
- Improved valuation, pricing and incentive mechanisms – environmental factors should be included in the valuation of assets and services.

The EPBC Act also identifies a fifth principle for consideration in environmental impact, namely:

Decision making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.

These principles are interrelated and need to be considered both individually and collectively as part of determining whether or not a project would be consistent with the principles of ESD in Australia.

An overview assessment of the Proposal against the principles of ESD is provided below:

34.2 Precautionary Principle

This EIS has considered the Proposal in terms of potential impacts to the environment, and in particular, the extent to which potential impacts may pose a significant risk to the environment.

Comprehensive specialist studies and impact assessments have been undertaken to examine the current Proposal and none of these assessments have identified any threats of serious or irreversible environmental damage. Where the assessments have identified the potential for minor environmental impacts, mitigation measures have been designed and proposed to ameliorate the impacts. These mitigation measures have been developed in accordance with current and accepted best management practice to achieve a neutral or beneficial effect on the environment.

34.3 Intergenerational Equity

The principle of 'intergenerational equity' requires that decisions made by the present generation would not result in a degradation of the environment for future generations.

The objective of this proposal is to erect and operate a resource recovery facility at the subject site. The proposal would facilitate the sorting and processing of predominantly construction and demolition waste generated on other sites by the proponent. The location of the subject site will facilitate a positive outcome for the proponent.

The increased potential for resource recovery, creates other benefits, which contribute to intergenerational equity:

- Contribution to greenhouse gas abatement

The Waste Strategy, 2007, notes that reducing the amount of waste we put in landfill can reduce greenhouse gas that is created when materials break down in landfills.

- Creating a culture of recycling

Any initiative that makes it easier and cheaper to recover and re-use materials from waste will assist to create a culture of recycling. The rights of the present and future generations to benefit from the use of natural resources and from the enjoyment of a clean and healthy environment will not be diminished as a result of the proposed development.

34.4 Biological Diversity and Ecological Integrity

The principle of 'biological diversity and ecological integrity' requires a full and diverse range of plant and animal species to be maintained and conserved.

The subject site is covered by the South West Growth Centre – Biodiversity Certification and biological diversity and ecological integrity has been considered during the certification process..

34.5 Improved valuation, pricing and incentive mechanisms

This principle involves the integration of long-term and short-term economic, environmental, social and fairness considerations into decision-making. For example, the "polluter pays" principle means that the costs of pollution and waste should be paid by those who cause the pollution or create waste.

Through separation and processing, the proponent is able to re-use between 90 and 95% of all waste collected. This provides benefits to the community as a whole, through reduced pollution and waste going to landfill. It manages long and short-term considerations for the economy, as well as environmental and social considerations.

This EIS describes the assessment of potential impacts of the proposal, taking into account the principles of ESD. The decision-making process for the design, impact assessment and development of mitigative measures has been carried out by implementing best practice measures, attending to matters raised by Government agencies, addressing matters raised by the community and Council. This has allowed comment and discussion regarding potential impacts, revision of aspects of the Proposal and the development of site-specific environmental management procedures.

PART J

JUSTIFICATION FOR THE PROPOSAL AND CONCLUSION

35. Conclusion and Justification

35.1 The Proposal

This Proposal involves:

- Erection and operation of a Resource Recovery facility
- Erection of ancillary facilities

35.2 Justification for the Proposal

This Proposal has been subject to exhaustive environmental assessment. As a result, the assessment, as summarised in this EIS, demonstrates effective management of impacts and moreover the ability of the Proposal to proceed/operate without detriment to the existing or future land uses and the environment.

Further, it stands to provide significant public benefit in terms of the potential reduction in waste to landfill through increased resource recovery.

At **Section 1.3** of this EIS, the need for this project has been considered.

Undertaking the Proposal in the manner proposed is considered justified, on balance, taking into consideration biophysical, economic and socio-cultural impacts.

35.3 Sustainability of the Proposal

The Proposal has been demonstrated to be sustainable in terms of:

- The acceptability of risks
- Protection of ecology and biodiversity
- Social equity considerations
- A precautionary approach to analysis, management and monitoring of impacts and risks to the environment
- The decision making process

35.4 Conclusion

Justification of the proposal has been reinforced throughout this EIS. In particular, potential environmental impacts associated with the Proposal have been identified and measures and safeguards established in the EIS to manage them. Council through the imposition of conditions of consent and the EPA through licensing conditions have the opportunity to further safeguard and ensure acceptable environmental performance and outcomes. Approval of the application is warranted.

36. Common Abbreviations

AADT	Annual Average Daily Traffic
AEC	Area of Environmental Concern
ANZECC	Australian and New Zealand Environment and Conservation Council 2000
ARI	Average Recurrence Interval
BoM	Bureau of Meteorology
CC	Construction Certificate
CLM Act	Contaminated Land Management Act 1997
CSIRO	Commonwealth Scientific Industrial Research Organisation
DA	Development Application
dB	Decibel
DCP	Development Control Plan
DEC	NSW Department of Environment and Conservation
DECCW	NSW Department of Environment, Climate Change and Water
DoP	Department of Planning
DoPI	Department of Planning and Infrastructure
DPI	Department of Primary Industries
EA	Environmental Assessment
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP and A Reg's	Environmental Planning and Assessment Regulations 2000
EPA Act	Environmental Planning and Assessment Act 1979

EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cwth)
EPI	Environmental Planning Instrument
ESCP	Erosion and Sediment Control Plan
ESD	Ecologically Sustainable Development
FM Act	Fisheries Management Act 1994
Ha	Hectare
HNCMA	Hawkesbury Nepean Catchment Management Authority
INP	EPA's Industrial Noise Policy 2000
LEP	Local Environmental Plan
LGA	Local Government Area
NorBE	Neutral or Beneficial Effect
NOW	NSW Office of Water
NPW Act	National Parks and Wildlife Act 1974
NSW	New South Wales
NV Act	Native Vegetation Act 2003
OEH	Office of Environment and Heritage
POEO Act	Protection of the Environment Operations Act 1997
PM	Particulate Matter
PMF	Probable Maximum Flood
PM ₁₀	Particulate matter less than or equal to 10 micrometres in aerodynamic diameter
RRF	Resource Recovery Facility
RMS	Roads and Maritime Services
RTA	Roads and Traffic Authority

SEARS	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SEPP 33	State Environmental Planning Policy No 33 – Hazardous or Offensive Industries
SEPP 44	State Environmental planning Policy No 44 – Koala Habitat Protection
SEPP 55	State Environmental Planning Policy No 55 – Remediation of Land
SEPP (Infrastructure)	State Environmental Planning Policy (Infrastructure) 2007
SREP 9	Sydney Regional Environmental Plan No 9 – Extractive Industries (No 2-1995)
SREP 20	Sydney Regional Environmental Plan No 20 – Hawkesbury Nepean River (No 2 – 1997)
The proposal	The RRF and other items for which consent is sought
TSC Act	Threatened Species Conservation Act 1995
VENM	Virgin Excavated Natural Material
WMA	Water Management Act 2000
WCMS	Water Cycle Management Study

37. References

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- Department of Water and Energy (2008) *Interim NSW Guidelines for Management of Private Recycled Water Schemes*
- Environmental Criteria for Road Traffic Noise (ECRTN), 1999, Environment Protection Authority
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- NSW Waste Avoidance and Resource Recovery Strategy 2007 DECC